

GREATER CAIRO AIR POLLUTION MANAGEMENT AND CLIMATE CHANGE PROJECT

Loan Agreement No. **9166-EG**
Project ID IBRD **P172548**

CONSULTANT TERMS OF REFERENCE

Implementation Support for Environmental and Social Activities

List of Acronyms

AF	Additional Finance
AQM	Air Quality Management
COED	Cost of Environmental Degradation
CTA	Cairo Transport Authority
EEAA	Egyptian Environmental Affairs Agency
EHS	Environmental, Health and Safety
E&S	Environmental & Social
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMMF	Environmental and Social Management and Monitoring Framework
ESMP	Environmental and Social management plan
ESS	Environmental and Social Standards
E-Waste	Electronic Waste
GBV	Gender Based Violence
GC	Greater Cairo
GCA	Greater Cairo Area
GEB	Global Environmental Benefits
GEF	Global Environment Facility
GoE	Government of Egypt
GRM	Grievance Mechanism
HCW	Healthcare Waste
HSE	Health, Safety and Environment
IWMF	Integrated Waste Management Facility
LMP	Labor management procedures

M&E	Monitoring and Evaluation
MoE	Ministry of Environment
MoHP	Ministry of Health and Population
MoLD	Ministry of Local Development
MSW	Municipal Solid Waste
PAD	Project Appraisal Document
PCU	Project Coordination Unit
PDO	Project development objective
PM10	Particulate Matters
SDS	Sustainable Development Strategy
SEA/SH	Sexual Exploitation and Abuse and Sexual Harassment
SWMP	Solid Waste Management Plan
TIU	Technical Implementation Unit
uPoPs	Unintentional persistent organic pollutants
WBG	World Bank Group
WMRA	Waste Management Regulatory Authority

I. Background

The Ministry of Environment in response to the Government of Egypt (GoE) is implementing **Greater Cairo Air Pollution Management and Climate Change Project** (the Project), financed by The World Bank. The Project seeks to reduce air and climate emissions from critical sectors and increase resilience to air pollution in Greater Cairo (GC), i.e., Cairo, Giza and Qalyubia Governorates and is being implemented with Ministry of Environment (MoE) in close collaboration with Ministry of Local Development (MoLD), Qalyubia Governorate, Cairo Transport Authority (CTA) and other stakeholder agencies.

The project [Environmental and Social Commitment Plan \(ESCP\)](#) is a part of the loan agreement and the grant agreement. The ESCP sets out material measures and actions that the Borrower shall carry out or cause to be carried out, including, as applicable, the time frames of the actions and measures, institutional, staffing, training, monitoring and reporting arrangements, and grievance management. The ESCP also sets out the environmental and social (E&S) instruments that shall be adopted and implemented under the Project, all of which shall be subject to prior consultation and disclosure, consistent with the Environmental and Social Standards (ESSs) of the World Bank, and in form and substance, and in a manner acceptable to the Bank. Once adopted, said E&S instruments may be revised from time to time with prior written agreement by the Bank.

The Project focuses on two main sources of air pollution: solid waste management and vehicle emissions in GC region and includes the following six main components (Annex 2 contains more description of the project components).

Component 1: Enhancing the Air Quality Management (AQM) and Response System:

This component will support the enhancement of the Air Quality Management (AQM) system in Egypt with a focus on Greater Cairo Air (GCA). It comprises two subcomponents which are:

- Subcomponent 1.1: Reduction of air pollution and Green House Gases (GHGs).
- Subcomponent 1.2: Strengthening resilience to air pollution.

Component 2: Support the Operationalization of Solid Waste Management (SWM) Master Plans in GC:

This component aims to support operationalization of Governorate SWM master plans, which lay down the full range of necessary actions and investments needed for each governorate to improve SWM services in accordance with the specificity of each Governorate. It comprises three subcomponents which are:

- Subcomponent 2.1: Waste Management Infrastructure
- Subcomponent 2.2: Supporting Response to COVID-19 Pandemic and Improving Healthcare Waste Management
- Subcomponent 2.3: Enabling activities, capacity building and institutional strengthening.

Component 3: Vehicle Emission Reduction:

This component aims to support activities aimed at reducing vehicle emissions from public transport sector. It comprises two subcomponents, which are:

- Subcomponent 3.1: Electric Bus Fleet and Related Infrastructure
- Subcomponent 3.2: Enabling Activities

Component 4: Communication and Stakeholders Engagement:

This component aims at ensuring that all stakeholders, in an inclusive manner, are actively involved in the design, implementation and monitoring of all Project activities and the Project is implemented following a full consultative participatory approach that is meant to build a constructive relationship between the stakeholders and the GoE. It consists of two subcomponents:

- Subcomponent 4.1: Enhanced capacity and behavioral change
- Subcomponent 4.2: Communication and outreach

Component 5: Project Management and Monitoring and Evaluation (M&E):

This component will support strengthening the operational, fiduciary, and technical capacity of the Project Coordination Unit (PCU) for implementation, coordination, supervision and overall management of the project, including, procurement, financial management, M&E, carrying out of external audits, implementation of the Stakeholder Engagement Plan (SEP), and reporting of project activities and results, all through the provision of goods, non-consulting services, consulting services, training and operating costs for the purpose. It will also support the Technical Implementation Units (TIUs) to be formed in the beneficiary ministries and agencies, for the delivery of their respective tasks.

Component 6: Enhanced E-Waste and HCW management for Reduction of uPOPs:

It is an additional finance (AF) to the parent project; this new activity focuses on reduction of unintended persistent organic pollutants (uPOPs) aligns with the “GEF Project Design and Review Considerations in Response to the COVID-19 Crisis and the Mitigation of Future Pandemics”. This new component will comprise 3 sub-components:

- Sub-component 6.1: Supporting effective E-Waste management, models, and solutions.
- Sub-component 6.2: Supporting effective healthcare waste management, models, and solutions.
- Sub-component 6.3: Supporting the preparation of Egypt’s application to Minamata Convention

II. Environmental and Social Management considerations.

An [Environmental and Social Management Framework \(ESMF\)](#) and a [Resettlement Framework \(RF\)](#) have been prepared for the entire project. An Environmental and Social Impact Assessment was also prepared for the Qalyubia Sanitary Landfill, the shared construction and demolition waste treatment facility, and the general access road as well as the infrastructure of the 10th of Ramadan Facility.

These instruments set forth the environmental and social management principles, mitigation measures and institutional responsibilities to deal with the identified impacts and risks in link with the relevant Environmental and Social Standards of the World Bank’s ESF, as well as the national regulations. [Labor Management Procedures \(LMP\)](#) and a [Stakeholder Engagement Plan \(SEP\)](#) identifying the project’s stakeholders, the type of information to be shared at specific milestones, and other forms of engagement throughout the project’s duration were also prepared.

The Environmental and Social risk classification of the project is High due to the nature, scale, and diversity of the proposed interventions. The following are some of the expected environmental and social risks associated with the project activities.

The construction and operation of the Integrated Waste Management Facility at 10th of Ramadan (IWMF-10R) constituents and the hazardous waste treatment facility could, if improperly designed or managed, result in significant adverse impacts on all environmental parameters (air, noise, ground water, soils, landscapes, health and safety, traffic, wastes, and cultural resources). The process of closing uncontrolled dumpsites, despite the positive outcomes, may be accompanied by occupational and community health and safety risks. The associated negative environmental impacts, in the absence of (or poorly

implemented) mitigation measures, are expected to be significant, irreversible, large scale and of high economic and social costs. The use of sterilization equipment, PPEs, etc., procured under the project to support combating COVID-19 can entail significant environmental and OHS risks associated with the handling and disposal of medical waste. In addition, there are expected environmental risks from the construction activities in component 3 and from the operation of E-buses in GC.

Social risks, which are rated high, emerge from construction risks and potential loss of livelihoods and potential land acquisition (though with very low probability, as the investments are planned on publicly owned lands). The critical social risks of the project are:

- Possible loss of livelihoods for the informal waste pickers at the Abou Zaabal dumpsite.
- Uncertainty about the scale and the magnitude of the livelihood impacts on the informal sector (for example, traditional waste collectors, street container waste pickers, and the operators of donkey-carts and tricycles as a result of the application of improved waste collection and transfer services.
- Land related negative impacts, as the locations of the two transfer stations and the hazardous waste treatment and final disposal facility.
- Inappropriate working conditions for labor, working on large-scale construction activities and hazardous work.
- Community health and safety, including possible community disturbance due to labor influx.
- Inadequate site selection for the landfill and the transfer stations, including the possible unwillingness of individuals or communities to accept their construction nearby as this might affect their quality of life and the value of their property; and
- Financial burden on poor and middle-income families due to the possible increase in service fees to pay for the costs of the improved service.

III. Organizational Structure

According to the project ESCP, it was required to establish and maintain a Project Coordination Unit (PCU) with qualified staff and resources to support management of ESHS risks and impacts of the Project. Competencies of the assigned staff cover Environmental, Community, Occupational Health & Safety, Social development, Gender, Communication and Public Awareness aspects. Technical Implementation Units (TIUs) have been formed in the beneficiary ministries and agencies for each component to oversee its implementation, each TIU is led by a responsible agency, a co-lead agency, and includes members from other relevant agencies.

The following actions have been taken to maintain the proposed organizational structure:

- The Project Coordination Unit (PCU) was established in July 2021, followed by the formation of the Technical Implementation Units (TIUs) in August 2021 for each component.
- The PCU hired an environmental specialist in September 2021 and a Social development and gender specialist in June 2022.
- Each TIU nominated or in the process of nomination an Environmental and Social focal point.

IV. Objective of the Assignment

The objective of this assignment is to hire a qualified consulting firm (“the consultant”) to support the Project Coordination Unit (PCU) and the Technical Implementation Units (TIUs) of “Greater Cairo Air Pollution Management and Climate Change Project” in the implementation of the environmental and social activities of the project in accordance with the Project Environmental and Social Commitment Plan, World Bank Environmental and Social Standards (ESSs), and to assist the PCU in compliance with applicable national environmental and social laws, regulations and policies and the World Bank Environmental and Social Standards (ESSs).

V. Scope of Work

The scope of work under this assignment covers all six components of the project. To achieve the objectives of the assignment, the consultant should be completely familiarized with the Project Appraisal Document (PAD), the Project ESCP, project Operational Manual (POM) and all the Environmental and Social Instruments that will be prepared as well as those that are already prepared¹ such as environmental and social management framework (ESMF) and its addendum, Environmental and Social Management Plans (ESMPs), Labor Management Procedures (LMP), Stakeholder Engagement Plan (SEP), Resettlement Framework (RF) and the Environmental and Social Impact Assessment for the Integrated Waste Management Facility Shared Infrastructure at 10th of Ramadan, etc. . The Consultant should be also fully familiar with the national legal requirements and standards to be able to understand the expected environmental and social impacts and risks of the project activities and to support in the compliance with the environmental and social commitment plan to mitigate the negative impacts. Towards this end, the consultant will carry out the following tasks.

VI. Detailed Tasks

The following are the detailed tasks to be carried out by the consultant.

Task 1: Prepare and Update the Environmental and Social instruments as needed

A complete set of environmental and social studies and documents have been produced during project preparation as the Environmental and Social Management Framework (ESMF) and its addendum, the Labor Management Procedures (LMP), the Stakeholder Engagement Plan (SEP), the Resettlement Framework (RF) and the Environmental and Social Commitment Plan (ESCP).

The project ESCP sets out the environmental and social instruments that shall be adopted and implemented under the project. The consultant is required to prepare the required environmental and social instruments as per the project ESCP, these instruments are as follows:

For Closing and Rehabilitation/ Containment of Abu Zaabal Dumpsite:

An ESIA for the closure plan of Abu Zaabal dumpsite noting that closure will start after the new controlled landfill site of the 10th of Ramadan is constructed and operational.

Prepare resettlement plans, livelihood restoration plans according to the already prepared RF for all project-related components and/or specific ESIA requirements

¹ A complete list of available environmental and social studies and documents produced during project preparation, and links to these documents, is provided in **Annex 1**.

A Livelihood restoration plan for Abu Zaabal Dumpsite including trainings for the waste pickers of Abo Zaabal will be prepared according to the World Bank ESF before starting any activities related to the dumpsite closure.

Detailed ToRs for the ESIA of Abu Zaabal Dumpsite Closure and LRP will be shared with the awarded firm.

All E&S documents and/or plans will be submitted for the Bank's review and clearance. Once cleared, the mitigation and monitoring measures contained in the E&S documents and/or plans will be part of the bidding process and contractual agreements.

The consultant will also **update the existing environmental and social instruments (as SEP, LMP, ESMP, Grievance Redress Mechanism (GRM) Manual, Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) Prevention and Response Action Plan, etc.)** from time to time if necessary, during Project implementation, to reflect adaptive management of Project changes and unforeseen circumstances or in response to Project performance.

Task 2: Support the PCU in the Preparation of regular comprehensive environmental and social (including Occupational and Community Health and Safety aspects) progress monitoring reports

According to the project Environmental and Social Commitment plan, the PCU is required to prepare and submit to the Bank regular (quarterly) monitoring reports on the environmental, social, health and safety (ESHS) performance of the project, including but not limited to the implementation of the ESCP, status of preparation and implementation of E&S instruments required under the ESCP, stakeholder engagement activities, functioning of the grievance mechanism(S), compliance to ESSs during implementation of project activities, project-related accidents and implementation plans for the project activities in the subsequent quarter.

The consultant will support the PCU in preparing the quarterly environmental and social monitoring reports and update the report template if needed. The progress monitoring reports which were submitted to the will be shared with the Consultant for reference.

Task 3: Monitoring of implementation of Environmental and Social Management Plan during construction activities for all project components

During construction, the consultant will ensure that all environmental, social and health and safety mitigation measures as stipulated in the different ESF instruments are being fully adhered to and that effective supervision and monitoring systems are in place. The consultant will monitor the implementation of the Environmental and Social Management Plan (ESMP) during the construction activities through frequent site visits and spot checks. The monitoring will include but not limited to: Contractor's compliance with ESHS requirements including its GBV/SEA obligations, Contractor's accident logs, proper disposal of construction wastes; Contractor's actual reporting (content and timeliness) is in accordance with the Contractor's contractual obligations; the Contractor's ESHS documentation (including regular reports and incident reports) regarding the accuracy and efficacy of the documentation, inspection and supervision regarding conformance of labor and working conditions. During this assignment duration (1 year), the E&S implementation support consultant will monitor the implementation of the ESMP during construction activities of the shared infrastructure for the IWMF – 10R according to the cleared ESMP by the WB and EEAA.

According to the project Environmental and Social Commitment Plan (ESCP), contractors and engineering supervising firms are required to provide monthly monitoring reports on ESHS performance in accordance with the metrics specified in the respective bidding documents and contracts, and submit such reports to the PCU. The consultant will also be responsible for reviewing these monthly reports submitted by the

contractors to ensure their compliance with the World Banks ESF, the E&S instruments and with the E&S national laws.

Task 4: Support in Stakeholder Engagement Activities

Stakeholder engagement and consultation is a continuous process during the whole project implementation, the consultant will support the PCU in the implementation of the Stakeholder Engagement Plan including its update – as needed, identification of new stakeholders, support the PCU during consultation sessions, including those dedicated specifically to vulnerable and disadvantaged groups.

Task 5: Conduct a Capacity Need Assessment and Training Plan for the Project Coordination Unit (PCU), different project Technical Implementation Units (TIUs) and project partners

Training and capacity building related to the E&S aspects of the project PCU & TIUs is an integral part of the assignment. The consultant will conduct meetings with the project PCU and TIUs to address their capacity building needs in the E&S field, this task will include the development of Capacity Need Assessment and Training Plan including the estimated budget for the implementation.

Capacity building needs for the different targeted groups may include, but not limited to, the following:

Entire Project

- SEP, GM, LMP [PCU and TIUs]
- ESIA/ESMP, RF and RPs for all activities under different components [TIUs and Operators]
- Workplace grievance mechanism, including roles, responsibilities and accountabilities, including who to contact with any questions or concerns [PCU and TIUs]

Component 2

- Overview of ESIAs/ESMPs and other Environmental and Social Assessment (ESA)- related studies [PCU and TIUs]
- Monitoring and supervision of implementation of ESIA outcomes in compliance with relevant ESSs [PCU, TIUs]
- Monitoring of EHS compliance, GBV, Code of conduct, Labor management plan, Special risk and hazard management/ERP and compliance with relevant ESSs [PCU, TIUs]

Component 3

- Monitoring of EHS compliance, GBV, Code of conduct, Labor management plan, Special risk and hazard management/ERP and compliance with relevant ESSs [PCU, Component 3 TIU]
- Road safety for e-Bus drivers (PCU, Component 3 TIU)

Task 6: Assess the needs of waste pickers, including women, to integrate them in the waste management chain

According to the Project Appraisal Document, targeted capacity-building, and livelihood enhancement activities for informal waste pickers/recyclers in Qalyubia Governorate, with tailored activities targeting female workers are required. These trainings will enhance the capacity of the informal waste pickers, including those who have lost their livelihoods due to project activities, to enable them to be either included in the solid waste chain or find alternative income generation/livelihoods. This includes but will

not be limited to (a) waste reuse/recycling; (b) refurbishment of waste components into useful/tradable products; and (c) support functions, such as cleaning and upkeep of transfer stations and waste disposal facilities, weigh bridge operation and other semi-skilled activities.

In light of this, the consultant is required to conduct the following tasks:

- Carry out an assessment for the needs of both men and women of waste pickers/recyclers in Qalyubia governorate to help in identifying the different capacity needs as well as their areas of interest in the SWM chain.
- Carry out a market needs assessment for the SWM chain including in relation to the business of recycling, refurbishment of waste into tradable products, support functions including cleaning and upkeep of transfer stations and waste disposal facilities. The market needs assessment should come up with an identification for the openings, opportunities, and challenges in the market as well as the existing gaps and the capacities needed for filling in these gaps.
- Design capacity building and training program that would allow matching the identified needs of the waste pickers/recyclers with the market opportunities. The design of the training program should include the proposed modules, methodology and requirements to deliver.
- Propose additional measures that could be needed to help in the integration of waste pickers in the market. This should specifically help in serving and supporting women to allow them to move forward with the new market opportunities (e.g., support in childcare facilities ...etc.)

Task 7: Any other activities related to the Environmental and Social services

The consultant will support the PCU in any other activities related to the environmental and social services in the project in order to ensure compliance with the World Bank ESF, the E&S instruments and with the national environmental and social regulations. If any additional activities are required, this contract is subject to amendment.

VII. Duration of the assignment

The E&S advisory service is a continuous process during the whole project implementation, the expected duration of the assignment is (1 year).

VIII. Deliverables

The Consultant shall prepare the following reports in English [and in Arabic] in 1 paper copy and complete digital files in a format and manner acceptable to the PCU and TIUs. Reports would be prepared initially in draft and finalized within two weeks following the receipt of comments from PCU/ TIU.

Report	Contents	Expected Delivery Date
Inception Report	Approach to the assignment, objectives, detailed methodologies in respect of each activity. Activities schedule including detailed workplan, mobilization plan, expected difficulties and assistance required, meetings held, and persons met.	2 weeks from contract signing

Progress Monitoring reports	All project activities related to the Environmental and Social aspects including every item stipulated under the ESCP such as stakeholders' engagement activities (SEP implementation), status of complaints and Grievances, labor management (LMP implementation), land related issues (RF and future Resettlement Plans implementation), ESMP monitoring activities during construction processes, updates on E&S activities and recommendations and next steps. Results of periodic monitoring activities and follow up on the status of implementation of corrective actions	Every 3 months
ESIA for the closure plan of Abu Zaabal Dumpsite	<ul style="list-style-type: none"> An ESIA for the closure plan of Abu Zaabal Dumpsite to be prepared according to the WB ESF and EEAA requirements. The ESIA has to be cleared by the WB and EEAA before any commencement of construction Activities. The Environmental and Social Management Plan (ESMP) will be attached to the bidding documents for the dumpsite closure 	September 2023
Livelihood Restoration Plan for Abu Zaabal Dumpsite	The Livelihood Restoration Plan for the waste pickers at Abu Zaabal dumpsite should be prepared, cleared by the WB and disclosed before taking any step related to preventing the pickers' access to the dumpsite.	September 2023
ESMP Monitoring during Construction phase	During the construction phase, the consultant will submit monitoring reports according to the ESMP including his observations and recommendations for contractors . The construction activities of the IWMF – 10R is expected to take 12 months	Monthly during construction activities of 10R-IWMF
Capacity Needs Assessment and training plan for PCU and TIUs	Capacity Needs Assessment and training plan for the PCU and the TIUs to be prepared after 2 months from contract signing.	CNA report after 2 months from contract signing
Assessment for the needs of both men and women of waste pickers/recyclers in Qalyubia governorate	Carry out an assessment for the needs of both men and women of waste pickers/recyclers in Qalyubia governorate to help in identifying the different capacity needs as well as their areas of interest in the SWM chain.	NA report after 3 months from contract signing
Market needs assessment for the SWM chain	Carry out a market needs assessment for the SWM chain including in relation to the business of recycling, refurbishment of waste into tradable products, support functions including cleaning and upkeep of transfer stations and waste disposal facilities.	Market needs assessment after 5 months from contract signing
Capacity building and training program for waste pickers/recyclers	Design capacity building and training program that would allow matching the identified needs of the waste pickers/recyclers with the market opportunities.	Capacity building and training program after 5 months from contract signing and ongoing based on the Needs Assessment report.

IX. Key Team Members:

The Consultant is required to provide a team of highly qualified personnel to professionally undertake the assignment, meeting the agreed targets, timelines, quality assurance and standards. The required total minimum person-months input expected is 10 months.

The team shall be a multidisciplinary team comprising at least the following key experts:

1. The Consultants should present a team of highly qualified personnel with adequate and proven qualifications and experience for fulfilling the overall requirements of this composed assignment. The proposed team should consist of the following key members:
 - **Environmental Expert (Team Leader)** with a master's degree in environmental sciences, engineering, or related field, with at least 10 years experience in undertaking Environmental and Social Impact Assessment for large scale infrastructure projects preferably related to solid waste management facilities and in transportation sector. Familiarity with the World Bank ESF is preferable.
 - **Labor and Occupational Health and Safety Specialist** with experience in labor and health and safety management, with at least 10 years of experience.
 - **Social Development and Gender Expert** with a Master of Arts Degree in Social Science or related field, with at least 10 years of experience in undertaking Social Impact Assessment and in managing different forms of risk management preferably in a project with a similar nature. The expert should have a track record of labor and working conditions, land acquisition and Stakeholder Engagement. The expert should be highly experienced in identification and mapping of stakeholders, determining vulnerable and disadvantaged groups and conducting meaningful consultations. S/He should have tracked record of analyzing social impacts and risks particularly in relation to similar type of projects. Strong familiarity with the World Bank ESF/OPs is highly desired. The expert should also have tracked record of understanding gender, resettlement, and stakeholders' engagement aspects.
 - **Other non-key experts e.g., ecologist, legal expert, civil engineer,** and others as needed for the timely delivery of the specific tasks.

The consultant shall also deploy appropriate additional technical and support staff to deliver the project tasks including collection of data, monitoring of E&S requirements during construction activities, and conducting surveys, as needed.

X. Administrative and Reporting Arrangements

The Consultant will report to the Project Coordinator of the Greater Cairo Air Pollution Management and Climate Change Project. The Consultant will work closely with the Environmental and Social Specialists of the Project Coordination Unit (the PCU) and with the TIUs of the project 6 components, who will also make available to the Consultant all related studies and information and facilitate his task on the ground. The PCU will in that respect provide the following to the Consultant:

- All relevant available documents, reports, maps, and data related to the project activities.
- Facilitate for the Consultant, any required meeting with various stakeholders, as well as the consultations and validation workshops.

Annex 1

Available Environmental and Social Instruments

- **Environmental and Social Commitment Plan (ESCP):**
- <https://www.eeaa.gov.eg/Project/127/Details>
- **Environmental and Social Management Framework:**
- <https://documents1.worldbank.org/curated/en/739341590759685510/pdf/Environmental-and-Social-Management-Framework-ESMF-Egypt-Greater-Cairo-Air-Pollution-Management-and-Climate-Change-Project-P172548.pdf>
- **Labor Management Procedures:**
- <https://documents1.worldbank.org/curated/en/583541596080184788/pdf/Labor-Management-Procedures-Egypt-Greater-Cairo-Air-Pollution-Management-and-Climate-Change-Project-P172548.pdf>
- **Stakeholder Engagement Plan:**
- <https://documents1.worldbank.org/curated/en/702671596107895560/pdf/Stakeholder-Engagement-Plan-SEP-Egypt-Greater-Cairo-Air-Pollution-Management-and-Climate-Change-Project-P172548.pdf>
- **Resettlement framework (RF):**
- <https://documents1.worldbank.org/curated/en/159801590759808179/pdf/Resettlement-Framework-Egypt-Greater-Cairo-Air-Pollution-Management-and-Climate-Change-Project-P172548.pdf>

Annex (2)

Detailed Project Description

The Project focuses on two main sources of air pollution: solid waste management and vehicle emissions in GC region and includes the following six main components.

Component 1: Enhancing the Air Quality Management (AQM) and Response System:

This component will support the enhancement of the Air Quality Management (AQM) system in Egypt with a focus on Greater Cairo Air (GCA). It will strengthen AQM infrastructure (monitoring and analytical), capacity-building activities, emergency response plans, and raise public awareness through information dissemination. It will build on trust fund supported activities on Pollution Management and Environmental Health (PMEH), which are helping EEAA to strengthen monitoring (including through procuring monitoring equipment, training on the equipment and on analysis), health impact assessments and carry out a foundational assessment of key sources contributing to air pollution in GCA. The project design retains flexibility to complete certain PMEH analyses (e.g., source apportionment, inventory needs assessment) as part of this component.

This component will also provide evidence-based solutions for pollution abatement, deepen EEAA's capacity for decision support and regulatory design, and develop a rapid response system that enables the GoE to respond with plans for emergency situations and for the public to take protective actions during high pollution days.

This component comprises two subcomponents, which are described below.

Subcomponent 1.1: Reduction of air pollution and Green House Gases (GHGs)

This subcomponent will support the carrying out of a program of TA activities on reduction of air pollution and GHGs, namely:

- (a) Development of an Integrated Climate and Air Quality Management Plan (IC-AQMP) including a timebound action plan for its implementation
- (b) Strengthening Air Quality Management (AQM) regulatory and policy tools, through:
 - i. Developing a mobile source emissions inventory including road and nonroad sources, and integrating it with existing inventories
 - ii. Continuous monitoring of short-lived climate pollutants, greenhouse gases, and carbon dioxide monitoring.
- (c) Development and rolling out of a specialized AQM and green jobs skills training program in universities and ministries including curricula such as chemical engineering, atmospheric science, environmental economics and environmental health, renewable energy interventions, energy efficiency and environmental economics, and resource efficiency/circular economy interventions.
- (d) Strengthening policy dialogue by carrying out assessments of the environmental health and the economic benefits of priority climate and air quality interventions, including cost-benefit and cost-effectiveness of emission abatement investments and capacity-building initiatives such as the trainings program.

Subcomponent 1.2: Strengthening resilience to air pollution

This subcomponent will strengthen resilience to air pollution through:

- (a) Improving air quality forecasting tools through development of a chemical transport model-based approach and its integration with local air quality monitoring data and dissemination of the forecasting information
- (b) Establishing institutional response mechanisms for high pollution days such as definition of criteria and protocols for identification of air quality action days and development of emergency plans and applicable decision protocols for said air quality action days; and
- (c) Strengthening the technical capacity of the National Committee for Crisis Management and Risk Reduction for implementation and enforcement of the protocols

Component 2: Support the Operationalization of Solid Waste Management (SWM) Master Plans in GC:

This component aims to support operationalization of Governorate SWM master plans, which lay down the full range of necessary actions and investments needed for each governorate to improve SWM services in accordance with the specificity of each Governorate. In view of the complexity and magnitude of SWM system in GC, the Project follows a phased and gradual approach to achieve tangible results on the ground. This approach involves providing technical support at the central level to the Waste Management Regulatory Authority (WMRA) and the MoLD and specific investments, technical, financial and project development support to SWM actions at the local level to the Qalyubia Governorate.

- Subcomponent 2.1: Waste Management Infrastructure

This subcomponent will support the development of new and/or upgrading of existing waste management infrastructure, in particular:

- (a) Construction of an integrated waste management facility at the 10th of Ramadan location including, inter alia, common infrastructure such as main and axis roads, water and wastewater connections and electricity connections around and within facility, disposal facilities for healthcare, demolition, and construction waste; and provision of technical assistance for associated studies, bidding documents, environmental and social impact assessment
- (b) Closing and rehabilitation/containment of Abou Zaabal dumpsite (including, inter alia, provision of technical assistance for preparation of detailed engineering studies, bidding documents, environmental and social impact assessments, and supervision of works)
- (c) Construction of a hazardous waste treatment and final disposal facility based on the findings of a detailed feasibility study and preparation of associated environmental and social impact assessments.
- (d) Construction of priority environmentally controlled transfer stations (including, inter alia, provision of technical assistance for preparation of a detailed engineering designs, bidding documents, environmental and social impact assessments, supervision of works and a comprehensive technical and financial operational manual for the sustainable operations and maintenance of the transfer stations)
- (e) Provision of technical assistance for the environmental upgrade of El-Akrasha recycling and industrial zone (including, preparation of a detailed engineering study, bidding documents and environmental and social impact assessments)

Public-Private Partnership in SWM is envisaged through the involvement of the private sector under Design, Build, and Operate (DBO) contract models, with the government owning the facility and its infrastructure (with financing from the project). Mobile assets such as vehicles, revenue from waste treatment and from recycling, development of additional cells for the landfill after project closure and operating costs will be covered by the operator.

- **Subcomponent 2.2: Supporting Response to COVID-19 Pandemic and Improving Healthcare Waste Management**

This component will support response to COVID-19 and improve health-care waste management, through:

- (a) strengthening capacities of hospitals for management of medical waste through
 - i. Provision of technical assistance for establishing and/or improving waste management systems
 - ii. Provision of autoclaves/steam sterilization equipment and associated technical assistance for decontamination of waste in said hospitals
 - iii. Supporting utilization of energy from waste incineration and planting of trees around healthcare facilities to improve carbon sequestration.
- (b) Supporting enhanced safety and security of solid waste management staff (including waste picker communities) through:
 - i. identification of target groups and carrying out of a needs assessment
 - ii. provision of personal protective gear
 - iii. provision of technical assistance and training on the safe handling, transportation, and disposal of healthcare waste
- (c) Strengthening cleaning and disinfecting systems of waste collection points, waste collection vehicles and public transportation system
- (d) Enhancing public awareness on linkages between air pollution and lung health and impact of respiratory infectious diseases through
 - i. Carrying out an assessment of heavily impacted communities and stakeholder groups
 - ii. Design and implementation of associated targeted public awareness campaigns including identification and design of appropriate communication modalities.
 - iii. Supporting dissemination of educational campaigns.

- **Subcomponent 2.3: Enabling activities, capacity building and institutional strengthening**

This subcomponent will support enabling, capacity-building and institutional strengthening activities, in particular by:

- (a) Strengthening the capacity of the Waste Management Regulatory Authority (WMRA) through:
 - i. Development of model bidding documents and performance-based contracts for the collection, transportation, and disposal of waste
 - ii. Development and operationalization of an integrated information management system for monitoring and evaluating effectiveness of various programs.
 - iii. Assessment and improvement of cost recovery and fees collection financial management system including associated by-laws, guidelines, regulations, and procedures.
 - iv. Undertaking priority technical and feasibility studies
 - v. Undertaking a comprehensive review of institutional mandates, roles, and responsibilities at the national level with a view to improving service delivery and ensuring sustainability of the SWM system

- (b) Strengthening the capacity of the executive SWM unit at the MoLD through, inter alia:
 - i. Establishment and operationalization of said unit.
 - ii. Provision of training and capacity building for staff of said unit and key stakeholders.
 - iii. Undertaking a comprehensive review of institutional mandates, roles, and responsibilities at the governorate level with a view to improving service delivery
- (c) The establishment and operationalization of the SWM unit in Qalyubia governorate

Component 3: Vehicle Emission Reduction:

This component aims to support activities aimed at reducing vehicle emissions from public transport sector. This shall be achieved through procurement of about 100 electric buses and the infrastructure required to operate and maintain these buses. The component will also support the CTA in acquiring the needed knowledge and experience in operating and scaling up electric bus fleet in Cairo. The Project will also upgrade facilities at CTA, including retrofitting existing bus depots with electric charging stations, power supply and related safety equipment; training CTA staff such as bus drivers and mechanics on operating and maintaining the new e-equipment.

- Subcomponent 3.1: Electric Bus Fleet and Related Infrastructure

This subcomponent will finance a low/no emission public bus transport fleet and related infrastructure, including:

- (a) Carrying out of the associated detailed design study.
- (b) Upgrading of existing bus depots to support e-buses, including, among others, provision of equipment for safe e-bus charging and maintenance (including deep cleaning), and key infrastructure improvements to meet power supply requirements for said e-buses and address female and male users' needs.
- (c) Acquisition of electric buses as specified in said design study through international competitive bidding.

- Subcomponent 3.2: Enabling Activities

This subcomponent will support enabling activities such as:

- (a) Establishing AQM system with a view to improve city-wide transportation planning across GC area
- (b) Provision of training and capacity building for bus operators on electric bus operations and technology and raising public awareness on utilization of electric buses
- (c) Development of a plan for scaling up deployment of e-buses

Component 4: Communication and Stakeholders Engagement:

This component aims at ensuring that all stakeholders, in an inclusive manner, are actively involved in the design, implementation and monitoring of all Project activities and the Project is implemented following a full consultative participatory approach that is meant to build a constructive relationship between the stakeholders and the GoE. This component is complementary to the comprehensive Stakeholders Engagement Plan (SEP) developed as part of the environmental and social risk management.

- Subcomponent 4.1: Enhanced capacity and behavioral change

This subcomponent will support strengthening capacity and behavioral change through:

- (a) Establishment of a solid waste educational center at the 10th of Ramadan integrated waste management facility
- (b) Targeted capacity building and livelihood enhancement activities for informal waste pickers/recyclers in Qalyubia governorate such as provision of training programs on waste recycling, refurbishment of waste into tradable products, support functions including cleaning and upkeep of transfer stations and waste disposal facilities among others, with tailored activities targeting female workers including an assessment of women's needs, interests and relevance to the job market to inform training programs and ensure their employability
- (c) Adoption and rolling out of a community based social marketing approach with a few to fostering behavioral change.
- (d) Preparation and implementation of a strategy to operationalize best practices in green jobs and circular economy and developing the skills of SMEs in this area.
- (e) Development of partnerships with civil society organizations with a view to:
 - i. Monitoring the performance of solid waste service providers and the delivery of SWM services
 - ii. Engaging with the public and implementing awareness campaigns as part of the community-based social marketing (CBSM) approach
 - iii. Improving the effectiveness and efficiency of the informal waste collector community (locally known as Zabbaleen community)

- Subcomponent 4.2: Communication and outreach

This subcomponent will support communication and outreach through:

- (a) Development and implementation of an information, education and communication strategy and action plan focusing on project activities.
- (b) Development and dissemination of information focusing on behavioral changes for preparedness for high air pollution events as well as adverse climatic events, including, designing a website for the purpose.

This subcomponent includes campaigns inducing behavioral changes and awareness campaigns targeting men and women.

Component 5: Project Management and Monitoring and Evaluation (M&E):

This component will support strengthening the operational, fiduciary, and technical capacity of the Project Coordination Unit (PCU) for implementation, coordination, supervision and overall management of the project, including, procurement, financial management, M&E, carrying out of external audits, implementation of the Stakeholder Engagement Plan (SEP), and reporting of project activities and results, all through the provision of goods, non-consulting services, consulting services, training and operating costs for the purpose. It will also support the Technical Implementation Units (TIUs) to be formed in the beneficiary ministries and agencies, for the delivery of their respective tasks.

Component 6: Enhanced E-Waste and HCW management for Reduction of uPOPs: It is an additional finance (AF) to the parent project; this new activity focuses on reduction of unintended persistent organic pollutants (uPOPs) aligns with the "GEF Project Design and Review Considerations in Response to the

COVID-19 Crisis and the Mitigation of Future Pandemics”. This new component will comprise 3 sub-components.

- **Sub-component 6.1: Supporting effective E-Waste management, models, and solutions**

Activities under this sub-component aim to support the implementation of Egypt National Policy Framework and Legal Directive on E-Waste and piloting solutions and models for E-Waste management and recycling to reduce air pollution and climate pollutant emissions. Activities are designed to support the country in a life-cycle approach to e-waste from understanding upstream issues, such as causes and generation of e-waste to safe recycling and safe extraction of precious commodities.

Specific activities will include: (i) strategy development and guidance for used electronic equipment, particularly at the household level including batteries and electrical appliances and their integration into existing strategies for the refurbishment, recycling, disposal and/or take back of equipment/eWaste and establishment of safe exposure limits for key uPOPs; (ii) technical assistance and capacity building for key public and private sector entities and agencies for the enforcement and implementation of upcoming Extended Producer Responsibility (EPR) schemes for new electronic equipment; (iii) support to recyclers of eWaste, including: assessment and technical assistance for enhanced efficiency in recycling processes, development of strategies and support for safe and effective recycling of batteries, development of risk assessment studies and risk mitigation strategies and capacity building for recyclers to ensure safer/cleaner processing for improved human and environmental health; (iv) support for alignment with the globally harmonized system on waste and eWaste, particularly with regard to developing train-the-trainer programs and other training/educational tools and products; (v) support for updating and monitoring of eWaste data and utilization of the uPOPs tool kit and E-Waste calculator for E-Waste processing and needs assessment for establishing an integrated management information system (MIS; (vi) piloting collection, safe dismantling, and recycling of E-Waste, particularly older equipment and household level eWaste at strategic locations and segregation and hazardous waste disposal, particularly waste which will not be targeted through EPR; (vii) testing of ‘take-back’ schemes and enhancing engagement with the private sector; (viii) testing of financing tools for start-ups and small and medium enterprises in E-Waste recycling and exploration of supporting enterprises in possible markets for recycled materials (e.g., gold, copper, silver) nationally, regionally, and internationally; and (ix) supporting further integration of informal sector players and those recently ‘formalized.’

- **Sub-component 6.2: Supporting effective healthcare waste management, models, and solutions**

To support activities to strengthen the enabling environment for sound management of Healthcare Waste and pilot innovative solutions for sound management of Healthcare Waste for reduction of air pollution, climate pollutant and uPOPs emissions to yield long-term results and systems-wide change.

Specific activities will include: (i) development of key studies and plans, including assessment of current data on HCW in a range of healthcare settings, including university and health insurance hospitals, pharmacies, assessment of remaining HCW incinerators and their impact, and a country-wide plan for HCW management in line with new regulations; (ii) technical assistance, including providing support for development of an integrated management information system (MIS) to support enhanced monitoring of HCW management and disposal practices, support to select healthcare institutions on utilization of innovative financial mechanisms, procurement of environmentally-sound equipment, training of staff, and integration with new protocols; and (iii) pilot and demonstration activities, including best practice for recycling and re-sale of safely segregated HCW, and modeling public/private financing and investment models for collection and treatment of HCW.

- Sub-component 6.3: Supporting the preparation of Egypt's application to Minamata Convention

For support to the GoE in its application and signing of the Minamata Convention on Mercury. In support of these efforts and building on the results of sub-components 6.1 and 6.2, particularly with regard to HCW management where mercury plays a key role, the project will provide international expertise and technical assistance activities towards the early-stage development of the application and initiation of key activities for the country's compliance with the convention. These activities include the following: (i) identifying current regulatory and policy needs for meeting obligations of the convention; (ii) identifying technical needs of EEAA and other agencies to successfully undertake the changes needed for meeting convention obligations; and (iii) identifying and filling, as possible, current gaps in data and state of knowledge for successful preparation for signing.