REQUEST FOR EXPRESSIONS OF INTEREST
CONSULTING SERVICES

Arab Republic of Egypt
GREATER CAIRO AIR POLLUTION MANAGEMENT AND CLIMATE CHANGE
"GCCC" PROJECT - PROJECT (P172548)

Assignment Title: Pilot Project for e-waste collection system

Reference No. (as per Procurement Plan): EG-EEAA-474650-CS-CQS

The Greater Cairo Air Pollution Management and Climate Change Project (herein "the Project") aims at reducing air emissions from critical sectors and increasing resilience to air pollution in Greater Cairo. The Project aims more specifically at reducing air emissions which is a key step toward the reduction of pollution concentrations and improvement of air quality. The Project will focus on two of the primary sources of air pollution in the Greater Cairo (GC) region (i.e., Cairo, Giza and Qalyoubia Governorates): open burning of solid waste and vehicle emissions; and will include six main components aiming at: (i) enhancing the air quality management framework and decision support system in Egypt; (ii) improving Solid Waste Management services; (iii) reducing air and climate pollutants from vehicle emissions; (iv) furthering stakeholder engagement, awareness and communication; (v) project management and monitoring & evaluation (M&E); (vi) addressing the important issue of unintended emissions of POPs.

Brief description about the 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 quipment/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 E-Waste, 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 E-Waste, particularly with regard to developing train-the-trainer programs and other training/educational tools and products; (v) support for updating and monitoring of E-Waste 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 E-Waste 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.'

The requested services covered by these terms of reference are to support the Project Coordination Unit (PCU) and the Technical Implementation Units (TIUs) of "Greater Cairo Air Pollution Management and Climate Change (GGAP&CC) Project" in the implementation of the service of **Assessment and technical assistance** to E-Waste recyclers for enhanced efficiency and safer/cleaner processing of WEEE in Egypt.

The Ministry of Environment (MoE) now invites eligible consultancy firms to indicate their interest in providing the services. Interested suppliers should provide information demonstrating that they have the required qualifications and relevant experience to perform the scope.

The shortlisting criteria is:

#	1. Shortlisting criteria	Percentage
1	**The consultancy firms expected to have:** ● Proven experience in E-waste financial models, E-waste economics, market analysis, and marketing strategies.	40%

	● Demonstrable experience with stakeholders' engagement private sector, government institutions, E-waste recyclers, NGOs, and other relevant stakeholders. ● Excellent knowledge of national and international regulations, polices, and standards related to E-waste management. ● Proven track record of having successfully completed at least one similar assignment either at the national or regional level.	
2	The Consultancy firms are expected to have a minimum of 5-7 years of experience providing consulting in the waste management sector, with a strong recommendation for experience in E-waste management.	20%
3	Key staff are expected to have Extensive experience in managing similar projects with strong management skills**.**	40%

Minimum % for qualification 75%

The Consulting Firm will be selected in accordance with the Request for Proposal with the **Consultants Qualification Selection** - CQS method" set out in the Procurement Regulations".

The Borrower shall prepare the TOR, request expressions of interest and information on the consultants' experience and competence relevant to the assignment, establish a short list, and select the firm with the most appropriate qualifications and references. The selected firm shall be asked to submit a combined technical-financial proposal and then be invited to negotiate the contract.

Further information can be obtained at the address below during office hours 09:00 to 17:00.

Expressions of interest must be delivered in a written form to the address below by e-mail extended to **21st. of May- 12pm (CLT)**

Greater Cairo Air Pollution Management and Climate Change "GCCC" Project Attn: **Ms. Heba Elkarkari – Procurement Consultant**

Address: 15 S El Tawfik Building, El Fustat El Gedida,
Old Cairo, Cairo - Egypt
Tel: +20 1128333019
E-mail: heba.elkarkari@gccceg.com;

The detailed Terms of Reference “TOR” including the scope of work and deliverables for the assignment is found below.

CONSULTANT TERMS OF REFERENCE

DESIGNING PILOT PROJECT FOR COLLECTION, SAFE DISMANTLING, AND RECYCLING OF 4000 TON E-WASTE IN EGYPT

1.Background

On September 30, 2020, the World Bank approved the Egypt: Greater Cairo Air Pollution Management and Climate Change Project (P172538). The project aims at reducing air emissions from critical sectors and increase resilience to air pollution in Greater Cairo. The project has five components: (i) Enhancing the Air Quality Management & Response System; (ii) Support the Operationalization of Solid Waste Management Master Plans in Greater Cairo; (iii) Vehicle Emission Reduction; (iv) Enhanced Capacity, Behavioral Change and Communication; and (v) Project Management and Monitoring and Evaluation.

In addition to the five main components, The Ministry of Environment also received a grant from the Global Environment Facility (GEF) to implement "Improving Management of E-waste and Healthcare Waste to Reduce Emissions of Unintentionally Produced Persistent Organic Pollutants (UPOPS)" project. The project is to be executed under the "Greater Cairo Air Pollution Management and Climate Change Project" (GCAPM&CC or 'parent' project) as an additional financing to the project. The GEF grant will be implemented through activities under Component 6 of the GCAPM&CC project.

The activities to be implemented under the GEF project/Component 6 comprises 4 subcomponents:

- Subcomponent 6.1: Supporting effective E-Waste management, models, and solutions. This subcomponent will support the implementation of the National Policy Framework and Legal Directive on E-Waste and pilot solutions and models for E-Waste management and recycling to reduce air pollution and climate pollutant emissions. Subcomponent
- Subcomponent 6.2: Supporting effective healthcare waste management, models, and solutions. This subcomponent will support activities to strengthen the enabling environment for sound management of Healthcare Waste and piloting 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. This work will be done in close collaboration with Subcomponent 2.2 which is implementing activities focused on creating model hospitals for proper HCWM and long-term changes

to create safer hospital and community environments during pandemics and other health emergencies.

· Subcomponent 6.3: Supporting the preparation of Egypt's application to Minamata Convention. This subcomponent will build knowledge and capacity within involved agencies, EEAA, Health, etc. to identify regulatory and policy needs for meeting obligations of Minamata convention and technical needs of agencies to meet Egypt's commitments under the convention.

· Sub-component 6.4: Supporting additional monitoring and evaluation (M&E) and specialized project management costs.

This term of reference (TOR) focuses on subcomponent 6.1 – Supporting effective E-Waste management, models, and solutions.

II. Objective of the Assignment

The objective of this assignment is to hire a qualified consulting firm "The Consultant", to technically support in Designing a sustainable and scalable system for the efficient collection, safe dismantling, and environmentally responsible recycling of 4000 tons of electronic waste from household within 1.5 years in Egypt, aiming to reduce environmental impact, promote resource recovery, and create economic opportunities. The system to be built on previous initiatives such as the E-Tadweer application, and any other online/offline or voluntary collection scheme facilitated the collection of electronic waste from households.

For the current phase, the product scope of the pilot is the waste that will not be addressed by Extended Producer Responsibility (EPR) schemes, referred to as "orphan" or historical waste. This includes ICT waste, household appliances waste, and batteries attached to ICT and household appliances. However, the Consultant needs to design a system that is scalable and able to incorporate, in further phases, the waste addressed by EPR schemes. The Consultant must be aware that EPR schemes are being developed to enhance recycling rates and improve the cost recovery of waste collection and transportation

III. Scope of Work

The Consultant shall undertake the following Tasks in two phases:

Phase 1 (Feasibility stage)

- Reviewing existing E-waste management practices and regulations in Egypt with special focus on provisions related to integrated management of E-waste (collection, storage, transportation, safe disposal, and EPR).
- Survey and analysis of the current and past collection scheme including private sector, NGOs, etc., approaches. This review should also include an examination of models

from other countries to identify best practices and innovative approaches that could be adapted to the Egyptian context.
- Feasability of different collection scheme pilots for development.
- Consultation and choice of one pilot approach. The chosen approach should be informed by international models and tailored to address the unique challenges and opportunities within Egypt

Phase 2 (design and implementation)

Detailed Design of an innovative and sustainable collection scheme that could serve as the foundation for testing the take-back system following the adoption of Extended Producer Responsibility (EPR) policies in Egypt. The system should include but not be limited to the following:

- financial scheme and incentive mechanisms(s).
- Identifying and engaging potential partners.
- Defining roles and responsibilities of all stakeholders and partnership opportunities(PPP).
- sustainability measures to ensure long-term impact.
- geographical scope of the project
- Identifying and proposing locations for drop-off points and other collection modalities.
- Establishing Key Performance Indicators (KPIs) to measure project success.
- Proposing a marketing strategy and material to raise awareness and encourage participation to be developed in coordination with comp.
- Implementation plan

IV. Duration of the assignment

The Expected duration of the assignment is four Months.

V. Deliverables:

The required milestones and delivery dates are indicated in the table below.

Deliverables		**Expected time**
Phase 1: Feasibility Stage		**2 months**
1	Inception report with detailed workplan	1 week from signing the contract
2	Detailed analysis report on existing collection schemes and their compliance with the existing regulatory system, including approaches by the private sector, NGOs, etc.	1 months from signing the contract

3	· Feasibility report evaluating various collection scheme pilots for development · Consultation workshop with TIU, PCU, WB team to present different collection scheme.	1.5 month from signing the contact
4	Decision document outlining the chosen pilot approach based on consultations and feasibility study	2 weeks after the consultation workshop
Phase 2: Design and Implementation		**2 months**
5	Semi final design document that include: · Financial plan and incentive mechanisms document. · Geographical scope document outlining project areas. · Proposed locations for drop-off points and/or other collection strategies · List of potential partners and engagement strategy. · Roles and responsibilities matrix for all stakeholders. · Marketing strategy and materials developed in coordination with Component 4 of the project.	5 weeks after chosen the pilot approach
5	Final report covers all the deliverables in addition to KPI to measure project success and detailed implementation plan (the report must be submitted in word, pdf, and ppt format)	2 weeks after approval of the semi-final design document months from signing the contact

All deliverables must be submitted in English except the presentation of the final report must be in both Arabic and English.

VI. Expertise of the consulting Firm/Organization

· Highly organized entity with the ability to produce quality work and meet tight deadlines.

· Proven experience in working on similar projects and assignments.

· Proven experience in financial models, economics, market analysis, and marketing strategies.

· Demonstrable experience with stakeholders' engagement private sector, government institutions, waste recyclers, NGOs, and other relevant stakeholders.

· Proven track record of having successfully completed at least one similar assignment either at the national or regional level.

VII. Key Team Members

The nature of the service requires the consultant/firm to assemble well-qualified and experienced team of experts, of sufficient size and capacity, covering the professional disciplines required to professionally undertake the assignment, meeting the agreed targets, timelines, quality assurance and standards. The required total minimum person-months input is variable depending on the specific tasks assigned. However, it will not exceed four months.

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

#	Specialist	Qualifications
1	Project Manager	· Minimum of a master's degree in environmental science, environmental management, planning, or any related discipline. · At least 15 years of professional experience in environmental science and disciplines · Project management certifications such as PMP Certification Training or similar are often preferred · Strong skills in planning, executing, and monitoring projects. · Familiarity with Egyptian regulations and international standards related to E-waste management. · Very Good understanding of E- waste business/value chain with special focus of collection, storage and transportation in Egypt and the region . · Proven track record of designing and implementing waste management projects, particularly in developing countries. · Demonstrable experience to supervise, manage, and advise the team in the implementation of similar assignments. · Demonstrable experience in working with government agencies, private sector, NGOs, recyclers, and community groups. · Demonstrable qualifications, experience, and skills in the field of waste management (such as development of collection systems, Extended producer responsibility polices, etc…) · Strong analytical and problem-solving skills.

		· Excellent verbal and written communication skills (in English and Arabic languages), · Good ICT skills and data manipulation tools The team leader will manage the entire assignment process and will be responsible for all deliverables, ensuring good quality standards.
2	Financial Analyst	· An Advanced degree in finance, Business Management, Accounting, or a related field. · A minimum of 3-5 years of experience in financial analysis, preferably in environmental or waste management projects. · Proficiency in financial modeling and budgeting. · Experience in cost-benefit analysis for environmental projects · Experience working in the waste management sector and related knowledge of public-private partnerships is highly desired. · Demonstrated competence and experience in conducting analysis and identification of sustainable financing mechanisms for the environmental and/or waste management sector is an asset · Ability to conduct surveys, analyze data, and generate comprehensive reports · Good communication skills · Good ICT skills and data manipulation tools
3	Environmental Scientist/Engineer	· An advanced degree in Environmental Sciences, Environmental Engineering, or any other related field (Master's or Ph.D.) are preferred. · Minimum of 3-5 years in environmental management, with a focus on e-waste or hazardous waste management · Experience in environmental regulations, waste management practices, and sustainability principles. · Proven experience in similar projects. · Knowledge of sustainability measures and long-term impact assessment. · Strong interpersonal skills and ability to communicate and work well with diverse people. · Excellent writing and communication skills. · Good ICT skills and data manipulation tools
4	Marketing and Communications Specialist	· Bachelor’s degree in in Marketing, Communications, Journalism, or a related field. · A minimum of 5-7 years of experience in marketing, content creation, or public relations, preferably in environmental projects. · experience in developing marketing strategies, and proficiency in social media and content management. · Strong written and verbal communication skills · Proven experience in similar assignment is highly valued · Good ICT skills and data manipulation tools

VIII. Administrative and Reporting Arrangements

The Consultant will report to the Project Coordinator of the Greater Cairo Air Pollution Management and Climate Change Project and the Senior Advisor for Component 6. The Consultant will work closely with the senior advisor of component 6 at the Project Coordination Unit (the PCU) and with the TIUs, 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 Consultan All relevant available documents, reports, 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)

Detailed Description of component 6

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.

- **Sub-component 6.4: Supporting additional M&E and specialized project management costs (Technical Implementation Units (TIU))**

To support the management, communication and coordination activities of the TIU overseeing the implementation of the GEF additional activities, chaired by a representative of the Waste Management Regulatory Authority (WMRA) and comprising representatives from the Environmental Health Department of EEAA and the Stockholm Convention Focal Point. It will also support the PCU and the TIU specific monitoring and evaluation activities of Component 6 in accordance with GEF and uPOPs monitoring and reporting requirements.

---

[1] All deliverables will be the property of the Government of Egypt