



## REQUEST FOR EXPRESSION OF INTEREST (CONSULTING SERVICES – FIRM SELECTION)

### Ghana, Africa Environmental Health and Pollution Management Programme (AEHPMP)

**Credit No.: TFOB3321**

#### Assignment Title: Consultancy Service for the Compilation of a National E-waste

#### Inventory (NEI) for Ghana

#### Reference No.: GH-EHPMP-170200-CS-CQS

The Environmental Protection Agency (EPA) through the Government of Ghana has received financing from the World Bank toward the cost of the Africa Environmental Health and Pollution Management Programme (AEHPMP), and intends to apply part of the proceeds for consulting services.

The overall objective of this assignment is to undertake a country-wide situation analysis on e-waste to understand the physical flow of e-waste, by provenance and type, and assess the economic and social weight of the sector. This situational analysis is envisaged to become the foundation of an e-waste management information system in Ghana. The system would serve as a platform to guide the Government on initiatives related to the development of infrastructure for e-waste management, resource mobilization, awareness creation, capacity building, education and research, and monitoring and evaluation.

The consulting services ("the Services") include: the conduct of primary research, technical investigations and preparation of essential documents for executing the assignment; inventory of e-waste by origin and type, trade routes and hubs, as well as a review of major toxic pollutants; assessment of environmental health implications of harmful chemicals and waste and options for risk management; assessment of socio-economic considerations to measure the contribution of the e-waste sector to the economy; assessment of the dimension of the sector, including the different value-chains, their economic value, their employment level, the involvement of other nationals, and their degree of formalization, as well as ways to increase the formalization of the sector and boost value addition and job creation; comprehensively review, identify gaps, and improve on existing baseline assessments conducted by GIZ, KfW, EU, and SECCO. The estimated level of effort (professional staff-months) is 32 staff-months. The duration of the assignment is estimated at Seven (7) months and the assignment is expected to start in March 2022.

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#### E-WASTE INVENTORY IN GHANA (COUNTRY-WIDE SITUATION ANALYSIS ON E-WASTE)

#### Reference No.: GH-EHPMP-170200-CS-CQS

##### 1. BACKGROUND

The quantities of e-waste accumulating in sub-Saharan countries have been increasing exponentially in recent years. Ghana has ratified the Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their disposal, which, among other substances, prohibits imports and exports of waste electronic and electrical equipment (WEEE), also known as "e-waste". In Ghana, the amount of e-waste generated is estimated at 171,000 MT/year (2009), of which 90-95 percent gets processed. Estimates place the contribution of e-waste recycling and associated activities to the Ghanaian economy at US\$105-268 million, mostly undertaken by the informal sector (Prakash et al., 2010). Waste from end-of-life electrical and electronic equipment, or e-waste, is a rapidly growing global problem. It contains valuable materials that have an economic value when recycled. Unfortunately, the majority of e-waste is recycled in the unreg-

ALL DOCUMENTS RELATING TO THIS ASSIGNMENT ARE ATTACHED TO THIS REQUEST FOR EXPRESSIONS OF INTEREST.

The Environmental Protection Agency (EPA) now invites eligible consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required expertise, qualifications and relevant experience to perform the Services. The shortlisting criteria are:

1. The core business of the firm should be in the different aspects of e-waste, hazardous waste or the field related to this assignment.
2. Firm should be legally registered and in good standing (provide proofs of legal registration and operation of firm).
3. Experience in working in Ghana and with government institutions. Non-Governmental Organizations and interest groups in local communities in Ghana in the last five (5) years and in the e-waste industry in Ghana.
4. Minimum of five (5) years of experience in providing consulting services in the field of e-waste, hazardous waste and other waste management sectors.
5. Must demonstrate record of major initiatives related to e-waste or hazardous waste, economic development and environmental sustainability.
6. Five (5) years of experience in undertaking similar assignments or projects of similar nature, scale and complexity

#### **Key Experts will not be evaluated at the shortlisting stage.**

The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16 and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" July 2016 revised November 2017, August 2018 ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest. In addition, please refer to the following specific information on conflict of interest related to this assignment as per paragraph 3.17 of the Procurement Regulations. Any false declaration will result in disqualification.

Consultants may associate with other firms to enhance their qualifications, but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected.

A Consultant will be selected in accordance with the Quality and Cost Based Selection method set out in the Procurement Regulations.

Further information can be obtained at the address below during office hours, i.e. 0900 to 1600 hours local time.

Expressions of interest must be delivered in a written and printed form to the address below in person by Wednesday, 17th November, 2021 at 1300 hours GMT. All packets containing the Expression of Interest Document must be sealed and clearly labelled/marked "Expression of Interest for the Compilation of a National E-waste Inventory (NEI) for Ghana".

For firms situated outside the borrower's country who, due to the COVID restrictions, cannot deliver their hard copies before the stated date, should submit a softcopy version of their printed copies at larry.kotoe@epa.gov.gh and jacob.attogbe@epa.gov.gh.

Expressions of interest must be delivered in a written and printed form to the address below in person by Wednesday, 17th November, 2021 at 1300 hours GMT.

#### **Africa Environmental Health and Pollution Management Programme**

#### **Project Implementation Unit**

WORLD BANK GROUP

deliberately carrying out two strikes

ulated informal sector and results in significant risks of toxic exposures to the recyclers, who are in many cases women and children.

Ghana is one of five African countries participating in the GEF-funded Africa Environmental Health and Pollution Management Program, whose objective is to reduce environmental health risks from Persistent Organic Pollutants (POPs) releases from e-waste in Ghana. As part of the implementation of the Program, the EPA will be supported to undertake a country-wide situation analysis on e-waste to understand the physical flow of e-waste, by provenance and type, and assess the economic and social weight of the sector. This analysis will build on a previous assessment, undertaken in 2009 and released in 2011. For effective E-waste management, there is the need to quantify and characterize this waste stream, identify major waste generators, and assess the risks involved. A scientific, safe and environmentally sound management system, including policies and technologies, needs to be developed and implemented.

#### **2. OBJECTIVES OF THE CONSULTANCY ASSIGNMENT**

The Objective of the Consultancy Services are to undertake a country-wide situation analysis on e-waste to understand the physical flow of e-waste, by provenance and type, and assess the economic and social weight of the sector. This situational analysis is envisaged to become the foundation of an e-waste management information system in Ghana. The system would serve as a platform to guide the Government on initiatives related to the development of infrastructure for e-waste management, resource mobilization, awareness creation, capacity building, education and research, and monitoring and evaluation.

#### **3. SCOPE OF SERVICES, TASKS AND EXPECTED DELIVERABLES**

The scope of work for the consultancy service will be as outlined below. The consultant will be responsible for conducting primary research, technical investigations and preparation of essential documents for executing the assignment. The consultant for the country-wide situational analysis on e-waste will perform following task and deliverable;

##### **3.1 Task**

The task for this assignment is to conduct an;

- a. inventory of e-waste by origin and type, trade routes and hubs, as well as a review of major toxic pollutants;
- b. assessment of environmental health implications of harmful chemicals and waste and options for risk management;
- c. assessment of socio-economic considerations to measure the contribution of the e-waste sector to the economy. The assessment shall collect, compile and analyze demographic and socio-economic data and indicators in target sites/areas identified through collaboration with EPA and other relevant stakeholders, including the total population, e-waste workers and their social and economic characteristics disaggregated by sex, age, education, marital status, family size, and access to social and health services and their economic contribution to their respective local communities;
- d. assessment of the dimension of the sector, including the different value-chains, their economic value, their employment level, the involvement of other nationals, and their degree of formalization, as well as ways to increase the formalization of the sector and boost value addition and job creation.
- e. Comprehensively review, identify gaps, and improve on existing baseline assessments conducted by GIZ, KfW, EU, and SECCO.

##### **3.2 Deliverables and Payment Schedule**

The consultant is expected to submit the following deliverables prepared in English and submitted electronically:

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ically and in print. Five printed copies and Two soft copies (One MS Word version and One PDF version) are required. The consultant will be paid in lump sum following satisfactory submission and acceptance of the deliverables. All data and reports related to this exercise belong to the Client and the Consultant must seek the consent of the Client before giving it to any third party. The timelines indicated below for the execution of the assignment is exclusive of reviews and validation workshops after each deliverable that will be facilitated by the client (EPA).

#	Deliverable	Deliverable Deadline	Payment Terms
1	Submission of inception report – The inception report will include an outline of a schedule of activities, methodology/approach, development of quantitative and qualitative survey questionnaire, stakeholder mapping, assumptions, proposed deliverable schedule, specific types of e-waste and value chains to be considered, etc and submitted to the Client (EPA).	10 days after signing of Contract	25%
2	Submission of Draft Technical Reports. The technical report shall include the following specific studies,		
	(a) inventory of the type of e-waste by origin and type, trade routes and hubs, as well as a review of major toxic pollutants.		
	(b) assessment of environmental health implications of harmful chemicals and waste and options for risk management.		
	(c) assessment of socio-economic considerations to measure the contribution of the e-waste sector to the economy.		
	(d) assessment of the dimension of the sector, including the different value-chains, their economic value, their employment level, and their degree of formalization, as well as ways to increase the formalization of the sector and boost value addition and job creation.		
	(e) any other costs such as policy, legal and legislative frameworks or corrections to the report, as will be discussed with the Client (EPA)		
	(f) Monthly progress reports to the Client (EPA)		
3	Submission of final Comprehensive Report: The report shall include the following		
	a. policy, legal and legislative frameworks	30 days	20%
	b. inventory of e-waste types by origin and type, trade routes and hubs, as well as a review of major toxic pollutants.		
	c. assessment of environmental health implications of harmful chemicals and waste and options for risk management.		
	d. assessment of socio-economic considerations to measure the contribution of the e-waste sector to the economy.		
	e. assessment of the dimension of the sector, including the different value-chains, their economic value, their employment level, and their degree of formalization, as well as ways to increase the formalization of the sector and boost value addition and job creation.		

#### 4. DURATION

- The assignment is to be carried out over a period of seven (7) months or 205 days.

- Demonstrable experience of cooperation with stakeholders from the e-waste informal sector, government institutions and international organizations in Ghana, and in the local Ghanaian setting.
- Good ICT skills and data manipulation tools
- Demonstrate a competent ability of compiling and processing collected data independently and in a group;
- Knowledge of ISO 14001 (Environmental Management) standards is an advantage;
- Excellent verbal and written communication skills (in English language), and demonstrated experience working with a variety of stakeholders, including senior government officials, pressure groups, policymakers, traditional leaders, the local people, consultants, and contractors in Ghana;
- Working knowledge or proficient in at least one local language, particular in the Northern Languages;
- Experience and past performance on similar assignments;
- Have a demonstrable ability to write concise technical documents.

#### Z.3 EXPERT 2

##### **Qualification:**

- Education: Minimum of a Master's degree in Social Sciences, Social/Community Development, or any relevant discipline.
- Specific Requirements:
  - At least 3 years of professional experience in conducting socio-economic assessment in e-waste or hazardous waste management sector or in related fields;
  - Experience in working with various stakeholders, and maintaining professional relationships;
  - Good ICT skills and data manipulation tools
  - Demonstrate a competent ability of compiling and processing collected data independently and in a group;
  - Excellent verbal and written communication skills (in English language);
  - Demonstrated experience working with a variety of stakeholders, including senior government officials, the local/community, etc in Ghana;
  - Working knowledge or proficient in at least one local language, particular in the Northern Languages;
  - Experience and past performance on similar assignments;
  - Have a demonstrable ability to write concise technical documents.

#### Z.4 EXPERT 3

##### **Qualification:**

- Education: Minimum of a Master's degree in Policy Management, Law, or any relevant discipline.
- Specific Requirements:
  - At least 3 years of professional experience in policy or legal analysis or assessment in (e) waste or hazardous waste management sector or in related fields;
  - Experience in working with various stakeholders, and maintaining professional relationships;
  - Demonstrated experience working with a variety of stakeholders, including senior government officials, the local/community, etc in Ghana;

## 5. QUALIFICATION OF CONSULTANT

A duly registered consultancy firm/entity (NGO, company, academic institution, research institution, etc.) with qualified individuals or professionals and support staff available to be deployed. The firm must have a team leader, researchers or experts specialized in the different aspects of e-waste, hazardous waste or the relevant topics related to this assignment. The firm should compose a team consisting of

- a. a team leader with broad experience in managing and leading studies in various fields;
- b. a professional researcher with a high level of technical skills and knowledge in demographic data collection and processing;
- c. other members specialized in e-waste management;
- d. environmental management or e-waste management/ supply chain;
- e. a professional highly experienced and knowledgeable in informal sector integration/ gender issues; and
- (6) be proficient in at least one local language, particularly in the Northern dialects.

## 6. EXPERTISE OF FIRM/ORGANIZATION

- a. Highly organized entity with the ability to produce quality work and meet tight deadlines;
- b. Proven experience in working on similar projects and assignments, particularly in the e-waste, hazardous waste and other waste management sectors;
- b. Proven track record for major initiatives related to e-waste or hazardous waste, economic development and environmental sustainability;
- c. Proven track record of client engagement;
- d. Demonstrable experience of cooperation with stakeholders from the e-waste sector, government institutions and international organizations in Ghana, and in the local Ghanaian setting;
- e. At least Five (5) years of experience in conducting comprehensive studies or assessment on various undertaken or similar assignments using advanced research methodologies. Extensive experience in performing professional qualitative studies is an asset;
- f. Proven track record of having successfully completed at least one similar assignment;
- g. Experience in working under pressure and within a limited timeframe.

## 7. EXPERTS REQUIRED

### Z1 Team Composition

The nature of the assignment requires the consultant/firm to assemble well-qualified and experienced team of experts, of sufficient size and capacity, covering the professional disciplines required for successful preparation of the national inventory. All members of the consulting team should possess a master's degree in their relevant fields, or the above qualification is preferable.

### Z2 EXPERT 1 (TEAM LEADER)

#### Qualification:

- Education: Minimum of a Master's degree in Environmental Science, Environmental Management, Environmental Engineering, or any relevant discipline. A higher qualification (such as a PhD) may be an added advantage.
- Specific Requirements:
  - At least 5 years of professional experience in conducting environmental assessment, product Life Cycle Assessment (LCA) in e-waste or hazardous waste management sector or in related fields;
  - Experience in working with various stakeholders, and maintaining professional relationships;
  - Good understanding of the business sector in Ghana, particularly in respect of e-waste;

• Experience in working with various stakeholders, including senior government officials, the local/community, etc. in Ghana;

• Have a demonstrable ability to write concise technical documents.

### Z5 EXPERT 4

#### Qualification:

- Education: Minimum of a Master's degree in Economics and/or Social Statistics or any relevant discipline.
- Specific Requirements:
  - At least 3 years of professional experience in the collection, evaluation and analysis of demographic data in (e)-waste or hazardous waste management sector or in related fields;
  - Good ICT skills and data manipulation tools including statistical tools/packages;
  - Demonstrate a competent ability of compiling and processing collected data independently and in a group;
  - Experience in working with various stakeholders, and maintaining professional relationships;
  - Excellent verbal and written communication skills (in English language);
  - Demonstrated experience working with a variety of stakeholders, including senior government officials, the local/community, etc. in Ghana;
  - Experience and past performance on similar assignments;
  - Have a demonstrable ability to write concise technical documents.

### Z6 EXPERT 5

#### Qualification:

- Education: Minimum of a Master's degree in Environmental Sciences, Environmental Management, Environmental Sustainability studies, or any Environmental Studies.
- Specific Requirements:
  - At least 3 years of professional experience in hazardous waste management or related field
  - Experience in working with various stakeholders especially in the informal e-waste sectors
  - Good understanding of the business working of the formal and informal e-waste sectors
  - Demonstrate a competent ability of collecting, compiling and processing of environmental information
  - Excellent verbal and written communication skills in English language
  - Working knowledge or proficient in at least one local language, particularly in the of the informal waste sector
  - Experience and past performance on similar assignments
  - Have a demonstrable ability to write concise technical documents

## 8. INFORMATION TO BE PROVIDED BY CLIENT

The Client will provide the following information to the Consultant:

#### Qualification:

#### Qualification:

#### Qualification:

#### Qualification:

#### Qualification:

#### Qualification:

- a. The Ghana E-waste Country Assessment Report, 2011
- b. Reports prepared by and introduction to e-waste teams lead by GIZ, KfW, SECCO, and the EU.
- c. Letter(s) introducing the Consultant wherever required in performing the assignment.

It should be noted that the Consultant will need to provide all the administrative, technical, professional and support staff needed to carry out their services efficiently. The Consultant will also be responsible for providing all other necessary facilities and logistical support for their staff or team(s) engaged, including accommodation, vehicle/transportation, utilities, office supplies and other miscellaneous requirements wherever applicable to render their services.