



## Terms of Reference

### Short-Term Consultancy

#### Research Assistant for the Conduct of Waste Analysis and Characterization Study and SWM Stakeholder Interviews

<b>Position Title:</b>	<b>Research Assistant</b> for the Conduct of Waste Analysis and Characterization Study
<b>Direct Supervisor:</b>	Russel James Andrade
<b>Location:</b>	Iloilo City
<b>Classification:</b>	Consultancy
<b>Conditions:</b>	Engagement is two (2) months; must be based in Iloilo City
<b>Working Hours:</b>	8 hours ( <i>The Research Assistant must be able to work outside regular working hours should the need arise.</i> )
<b>Starting Date:</b>	13 October 2021
<b>Payment:</b>	fixed monthly cost inclusive of applicable taxes and government mandatories

#### 1. ABOUT THE PROJECT

The Alliance to End Plastic Waste (AEPW), ICLEI South Asia, and ICLEI Southeast Asia have entered into a partnership to implement the **"Alliance + ICLEI Developing Plastic Waste-Free Cities"** program. The program seeks to address the needs of urban local governments, which are primarily tasked with the daunting challenge of ensuring sustainable and scientific plastic waste management.

It is being implemented in five Asian Cities—including three cities in Southeast Asia namely Jambi City (Indonesia), Iloilo City (Philippines), and Iskandar (Malaysia). Through this initiative, ICLEI Southeast Asia will provide technical support to the cities in developing a plastic waste management plan and an implementation roadmap. ICLEI will also identify a specific financially viable and scientifically sound implementation project, which would subsequently be funded by the Alliance to End Plastic Waste, based on final approval by AEPW. The overall objective is to identify and develop investment-ready potential projects which are consistent with the AEPW's goal of effective waste management infrastructure that helps in preventing leakage of plastic in the environment and promoting circular solutions.



## 2. OBJECTIVES

The Research Assistant's (RA) overall role is to assist and support activities for the collection of waste-related data and information in Iloilo City, particularly through the conduct of waste analysis and characterization survey, key informant interviews, and focus group discussion among relevant local actors.

Specifically, this consultancy is intended to cover the following:

- A. Preparation and Training
  - i. Coordinate relevant government and non-government offices to properly administer the activities
  - ii. Assist in the finalization of the following, in consultation with the Iloilo City LGU and ICLEI SEAS:
    - 1. Sampling locations based on the identified waste generators in the municipality (*See Annex A for the list of identified waste generators.*)
    - 2. Sampling schedule and work plan
  - iii. Understand and/or enhance capacities on the standard operating procedures (SOP) and WACS methodology to be employed
  - iv. Support the acquisition of tools, materials, and other necessary resources
  - v. Orient community stakeholders
- B. Conduct of on-ground waste quantification and characterization, plastic characterization, and brand audit
  - i. Assist in the overall conduct of waste analysis and characterization
  - ii. Support the logistical requirements and preparation of waste samples to be sent to accredited laboratory facility for chemical characterization (*See Annex A for the list of parameters.*)
- C. SWM Stakeholders Interviews
  - i. Coordinate and liaise with relevant SWM stakeholders for the conduct of interviews.
  - ii. Provide support in the preparation and development of interview design and methodology
  - iii. Provide assistance in the conduct of focus group discussions and key informant interviews of waste pickers, junk shops, and other SWM stakeholders.

D. Data Processing and Analysis

- i. Assist in the consolidation and post-processing of data
- ii. Provide support in the formulation and development of baseline study on solid waste of the city, with focus on plastic wastes.

E. Support the development of detailed activity and financial reports.

### 3. DURATION AND LOCATION

The Research Assistant shall be engaged for a period of two (2) months and shall start by **13<sup>th</sup> October 2020**. The Research Assistant must be based in Iloilo City for the entire duration of this engagement.

### VII. CONFIDENTIALITY

All data, documents, reports, and any purchased equipment shall be the property of ICLEI SEAS, and shall be turned over upon completion of the assignment. The Research Assistant shall not pass on to any third party any data, documents, reports, or other materials prepared or obtained during the assignment and three (3) years thereafter.

### VIII. QUALIFICATIONS

- Must have at least a bachelor's degree in urban planning, development studies, urban planning, environmental management, statistics, or other related fields. A Master's degree or further studies on the environment, waste management, urban planning, or sustainable development would be an advantage.
- Individuals with prior experience in the conduct of Waste Analysis and Characterization, and engaging with local stakeholders (e.g., household, formal and informal waste pickers, recyclers, etc) would be preferred.
- The consultant must be knowledgeable with the Philippines' waste management scenario, policies, and programs.
- Excellent presentation as well as oral and written communication skills.
- Familiarity with Microsoft Office applications and tools/software relevant to this project.
- Fluency in Ilonggo (preferred), Tagalog, and English languages.

### IX. REPORTING



The consultant will report directly to Russel James Andrade, project focal for Iloilo City.

## **XI. APPLICATION**

Applicants should submit their resume to Mr. Russel James Andrade through email address [russel.andrade@iclei.org](mailto:russel.andrade@iclei.org) before **11 October 2021**.

- Letter of Intent containing confirmation of availability for the consultancy's duration, and an outline of relevant experience and background. Previous work engagement must be supported with a proof, e.g. project agreement, certificate of completion, website or news article, or project report.
- Latest CV

For any queries, please contact ICLEI SEAS via [russel.andrade@iclei.org](mailto:russel.andrade@iclei.org) or through mobile number +63 917 623 2618.

## ANNEX A

### List of identified waste generators

- Residential
- Street Sweeping
- Commercial areas
- Malls
- Offices
- Public Markets
- Hotels
- Restaurants
- Religious Places
- Tourist spots
- Parks
- Bodies of water where waste leakage occurs
- Black spots
- Material Recovery Facilities
- Dumpsites

### List of parameters for chemical analysis

Parameters for Physico-Chemical Characterization	
Moisture: In Situ and Gravimetric Measure	
Parameters for Chemical Characterization (Proximate)	
Moisture (drying at 105C for 1 hr)	
Volatile combustible matter (Ignition at 950C in the absence of oxygen)	
Fixed Carbon	
Ash (weight of residue after combustion in an open crucible)	

Parameters for Chemical Characterization (Ultimate)	
Carbon	
Hydrogen	
Oxygen	
Nitrogen	
Sulphur	
Ash	
Total Carbon Analysis	
Total Nitrogen (Kjeldahl method)	
Calorific Value (Bomb Calorimeter) kCal/kg	
C/N Ratio	
Phosphorus as P <sub>2</sub> O <sub>5</sub>	
Potassium as K <sub>2</sub> O	
Chlorides	
Bulk density gm/cc	