



Terms of Reference

Short-Term Consultancy Conduct of Waste Analysis and Characterization Study (WACS) in Jambi City, Indonesia

Position title	:	WACS Research Team
Direct supervisor	:	ICLEI Project Officer
Type	:	Short-term consultancy for individual experts or a firm/team (Indonesian national)
Location	:	Jambi City, Indonesia
Application deadline	:	03 October 2021
Inclusive terms	:	October – November 2021
Starting date	:	3rd week of October 2021
Payment	:	Max. budget of IDR 85,000,000 inclusive of taxes and government mandates

1. About the project

The [Alliance to End Plastic Waste \(AEPW\)](#) and [ICLEI-Local Governments for Sustainability](#) South and Southeast Asia Secretariats have entered into a partnership to implement the **"Alliance + ICLEI Developing Plastic Waste-Free Cities"** programme. The programme 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 5 Asian Cities— including 3 cities in Southeast Asia namely Jambi City (Indonesia), Iloilo City (Philippines), and Iskandar Region (Malaysia). Through this initiative, ICLEI Southeast Asia will provide technical support to the cities in developing a plastic waste management plan and an implementation road-map. 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. Scope of Work

The research team shall assist ICLEI in the conduct of a waste analysis and characterization study (WACS) of the municipal solid wastes and plastic wastes in Jambi City, Indonesia. The following activities shall be undertaken by the research team:

<p>Preparation and Training</p>	<ul style="list-style-type: none"> • Assist the ICLEI Project Officer with consultation to the Jambi City Coordinator (Environment Agency) to finalize: <ul style="list-style-type: none"> ❖ the identified distribution of sampling locations; ❖ the proposed sampling schedule; ❖ the identified survey tools and materials, as well as other necessary resources needed; ❖ administration procedure of laboratory analysis with the selected laboratory; and ❖ the draft questionnaire survey. • <i>Kindly see Annex A for reference.</i> • Participate in WACS methodology training and orientation together with the Jambi City Coordinator that will be delivered by ICLEI Project Officer.
<p>Conduct of on-ground WACS of municipal solid wastes and plastic wastes</p>	<ul style="list-style-type: none"> • Carry out interviews by using questionnaire surveys with key actors from each identified distribution of sampling locations. • Quantify and characterize wastes from each identified distribution by type that are inline with the WACS methodology within 7 days in a row for each sampling location. • Collect and send waste samples to be forwarded to the selected laboratory for chemical analysis. • Secure results of laboratory analysis.
<p>Data processing and analysis</p>	<ul style="list-style-type: none"> • Consolidate and conduct post-processing of data • Submit report containing results and analysis

3. Deliverables and time frame

The following table outlines the deliverables and the indicative delivery timeframe, respectively.

Deliverables	Indicative timeframe
<p>Preparation and Training >>></p>	<p>October 2021</p>



<ul style="list-style-type: none"> • Fixed sampling schedule • Final questionnaire survey • Checklist of tools, materials and other resources needed • Acknowledge receipt from delivery services • on sending samples for lab analysis to the selected laboratory • Attended-list of WACS methodology training and orientation 	
<p>Conduct of on-ground WACS of municipal solid waste and plastic wastes</p> <p>>>></p> <ul style="list-style-type: none"> • Documentation (photo and video) • Evidence on lab sample receipt by the selected laboratory 	October – November 2021
<p>Data processing and analysis</p> <p>>>></p> <ul style="list-style-type: none"> • Jambi City' map with pinned of distribution of sampling locations • Questionnaire survey and its summary in the format excel spreadsheet* • Result of lab analysis • Report of WACS results, analysis, and recommendations <p>Note: *Hard documents (original) of the questionnaire survey should be sent to ICLEI Indonesia Office.</p>	November 2021

4. Payment schedule

ICLEI Indonesia Office shall pay the research team for the services herein stipulated. Payment will be made following the schedule of tranches below.

Percentage	Milestone
50%	Upon contract signing (mobilization fund)
50%	Upon submission of data processing and analysis along with the supporting documents to the ICLEI Project Officer.

5. Qualifications

- At least a bachelor's degree in environmental science/management/technique, urban and regional planning, or other relevant degrees. Master's degree or



further studies on environment, waste management, urban planning or sustainable development would be an advantage.

- A minimum 1 year of work experience or research related to waste management. Preferably, prior experience in the conduct of waste analysis and characterization (WACS).
- Familiar with quartering and coning methods in the conduct of WACS would be an advantage.
- Experience in working with local governments would be an advantage.
- Excellent field research, report writing, and data management skills.
- Excellent presentation as well as oral and written communication skills in English.
- Active user of MS Office applications (Word, Excel, PowerPoint) and virtual conference meeting applications (e.g. Zoom, Microsoft Teams, Google Meets).
- High level of initiative, flexibility, and resourcefulness with a drive for efficiency and results.
- A resident of or place of business in Jambi City is preferred.

6. Reporting

The research team will report directly to the ICLEI Project Officer based in Jakarta City. All activities are supervised by ICLEI Southeast Asia Secretariat project team and in close consultation with the Jambi City Coordinator.

7. Terms and Conditions

1. Time is the essence of the contract and such all works shall be completed within the time stipulated in the contract/work order. During the implementation of on-ground WACS of municipal solid waste and plastic wastes (14 days), **the research team should give a progress report (by call and/or email) to the ICLEI Project Officer at least once in 2 (two) days.**
2. All data, documents, reports, and any purchased equipment shall be the property of ICLEI Indonesia Office, and shall be turned over upon completion of the assignment. The research team 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.

8. Application

Interested applicants are requested to apply on or before **October 3, 2021 at 5:00 PM; Jakarta time (Western Indonesian Time)** by sending the following documents in English to **Ms. Rika Lumban Gaol** via email address rika.lumbangaol@iclei.org and copy iclei-indonesia@iclei.org:



- Expression of interest and confirmation of availability for the consultancy's duration. Letter should be addressed to Country Manager of ICLEI Indonesia Office; and
- Latest CV and outlining relevant previous work engagements in relation to this consultancy. Previous work engagement must be supported with proof, e.g. project agreement, certificate of completion, website or news article, or project report; and
- Proposed personnel team.

For any queries, please contact ICLEI via email address above.



ANNEX A. DISTRIBUTION OF SAMPLING LOCATIONS IN JAMBI CITY

Kindly please note that:

- The list of distribution of sampling locations might be changed (less or more) depending on the conditions and situations on the ground. The final number of distribution of sampling locations should be consulted and approved first by the ICLEI Project Officer and the Jambi City Coordinator; and
- According to WACS methodology, quantifying and characterizing wastes from each final distribution of sampling locations should be carried out in 7 days in a row. By considering the number of distribution of sampling locations, thus, the on-ground WACS would be carried out in 2-batch (7 days for each batch) or in total within 14-days in a row.

NO	LOCATIONS NAME	NUMBER OF LOCATIONS	ON-GROUND ASSESSMENT	
			Category	Sample
1	Residential (household)	4	Urban - HIG - Puri Mayang Resident	20
			Urban - MIG - Villa Gading Mayang Resident	20
			Urban - LIG - Villa Kenali Permai Resident	20
			Rural characteristics - Puri Masurai 5	20
2	Street sweeping	2	Residential (Urban HIG-MIG, LIG & Rural characteristics) - Taman Hutan Kota Mayang	1
			Commercial - Jl. Ir. H. Juanda	1
3	Commercial areas	1	Minimarket & Shop - Jl. Ir. H. Juanda and surrounding areas	15
4	Malls	2	Mall - Mall JAMTOS Jambi Town Square	1
			Mall - Mall WTC Batanghari	1
5	Office	1	Government institutions (schools, colleges, offices etc.) - City Hall of Jambi City and surroundings	10
6	Hotels	2	Hotel - Swiss-Belhotel Jambi	1
			Hotel - ASTON Jambi Hotel & Conference Center	1
7	Restaurants	2	Restaurant - Restoran Sederhana Sipin Jambi	1
			Restaurant - RM Aroma Cempaka - Basuki Rahmat Jambi	1



8	Wet Market (Chicken/Fish Market)	1	Wet Market (Chicken/Fish Market) - Pasar Angso Duo Baru (Chicken-Fish Area/Block)	1
9	Vegetable and Fruit Market	1	Vegetable and Fruit Market - Pasar Angso Duo Baru (Vegetable Area/Block)	1
10	Religious Place	2	Mosque - Masjid Agung Al Falah Kota Jambi	1
			Mosque - Masjid Raya Magat Sari	1
11	Transfer Stations	3	Transfer Stations - Depo Perumnas Kota Baru	1
			Temporary Collection Points - TPS Lorong Kodim	1
			Temporary Collection Points - TPS XXX	1
12	Dumpsite	1	(New - Zone 1) Talang Gulo Landfill	1
13	Processing Facilities	1	Pilot project Integrated Resource Recovery Center (IRRC) Waste to Energy (WTE): Bio-methanation Plant; Talang Banjar Market	1
14	Water-ways	1	Gentala Arasy Bridge	1
TOTAL		24		123