

PLASTIC SMART CITY- TV ACTION – THAILAND
WWF THAILAND
TERMS OF REFERENCE
FOR ENDLINE ASSESSMENT

Title: Expert/Researcher

Contracting Agency: WWF Thailand

Department: Plastic team, Conservation Unit

Location: Songkhla, Hat Yai, Surat Thani and Koh Samui cities, Thailand

Type of Contract: Consultancy Agreement

Contract Duration: 01 December 2024 - 31 March 2025

A. BACKGROUND

In 2020 WWF was awarded the Norwegian Broadcasting Channel's Telethon, "TV-Action" to conduct the programme "An Ocean of Opportunities". The aim of the programme is to reduce plastic leakage to nature by 30% in nine cities in Southeast Asia (Bogor, Depok and Jakarta in Indonesia; Manila in the Philippines, Hat Yai, Koh Samui, Songkhla, and Surat Thani in Thailand; and Hue in Viet Nam).

Further, the programme has five outcomes: 1) City Authorities have committed to become Plastic Smart Cities and are implementing evidence-based Action Plans, 2) Reduced use of key plastic products, 3) Increased proportion of households with access to basic waste collection services, 4) increased city recovery rate for plastics, and 5) improvement in landfill management. In 2021 all nine cities conducted comprehensive baseline studies to inform the activities of the project, using the methodologies Waste Wise Cities Tool (WaCT), Waste Flow Diagram (WFD) and Wasteaware Benchmark Indicators (WABI). The programme is now coming to a close and WWF wishes to rerun some of the methodologies to produce an endline assessment.

B. MANDATE

WWF seeks to engage a consultant to conduct an endline assessment with a narrative report for the TV-Action project conducted from 2021-2024/5 in Songkhla, Hat Yai, Surat Thani and Koh Samui cities.

C. OBJECTIVES

The key objective of the endline assessment is to leverage primary and secondary data on the municipal solid waste management system in Songkhla, Hat Yai, Surat Thani and Koh Samui cities. The endline assessment will compare the results against the baseline assessments conducted in 2021. The endline assessment will be conducted using the methodologies Waste Wise Cities Tool (WaCT) and Waste Flow Diagram (WFD).

D. SCOPE OF WORK

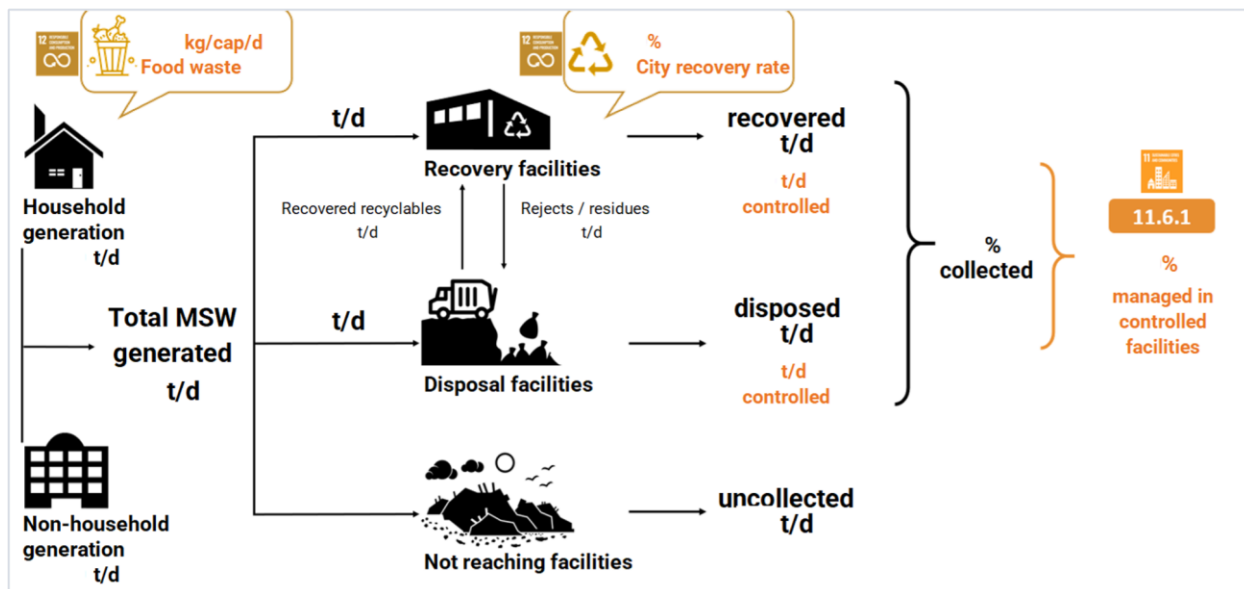
a. Methodologies

1. The Waste Wise Cities Tool (WaCT)

WaCT is the result of a joint effort, led by UN-Habitat, to develop a methodology to support municipalities in the assessment and monitoring of the Sustainable Development Goal (SDG) indicator 11.6.1: “Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal solid waste generated, by the city”.

Finalized in 2021[1], the WaCT provides a rapid overview of the physical components of the solid waste management (SWM) system in place and quantifies parameters that will help cities and countries to better manage resources, mitigate and prevent environmental pollution, create business, employment and livelihood opportunities and shift towards a circular economy. Apart from SDG 11.6.1, it provides information for two additional SDG indicators related to circular economy in cities: “Food waste generation” (SDG 12.3.1) and “Resource recovery systems” (SDG 12.5.1) in cities

The results from the WaCT process can be visualized in the figure below, that will be completed with the actual figures from the analysis in Songkhla, Hat Yai, Surat Thani and Koh Samui cities.



The WaCT consists of 7 steps that guide the collection of data on municipal solid waste (MSW) generated, collected, and managed in controlled facilities, as presented in the figure below and described in further details in the next section.

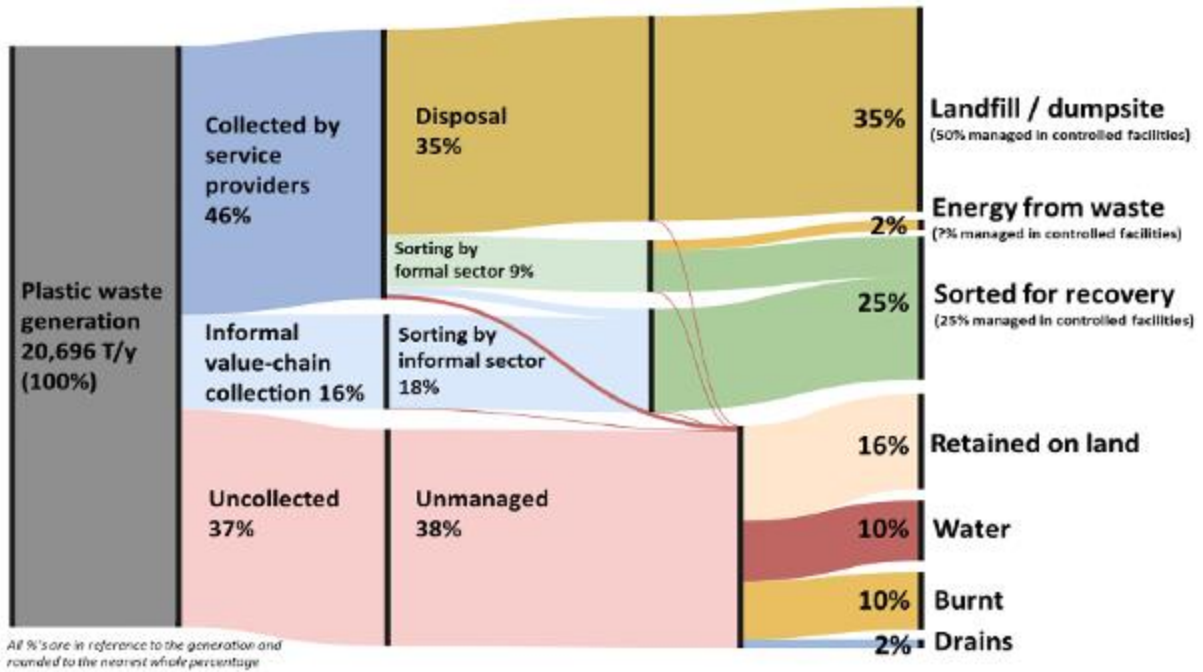


2. The Waste Flow Diagram Methodology

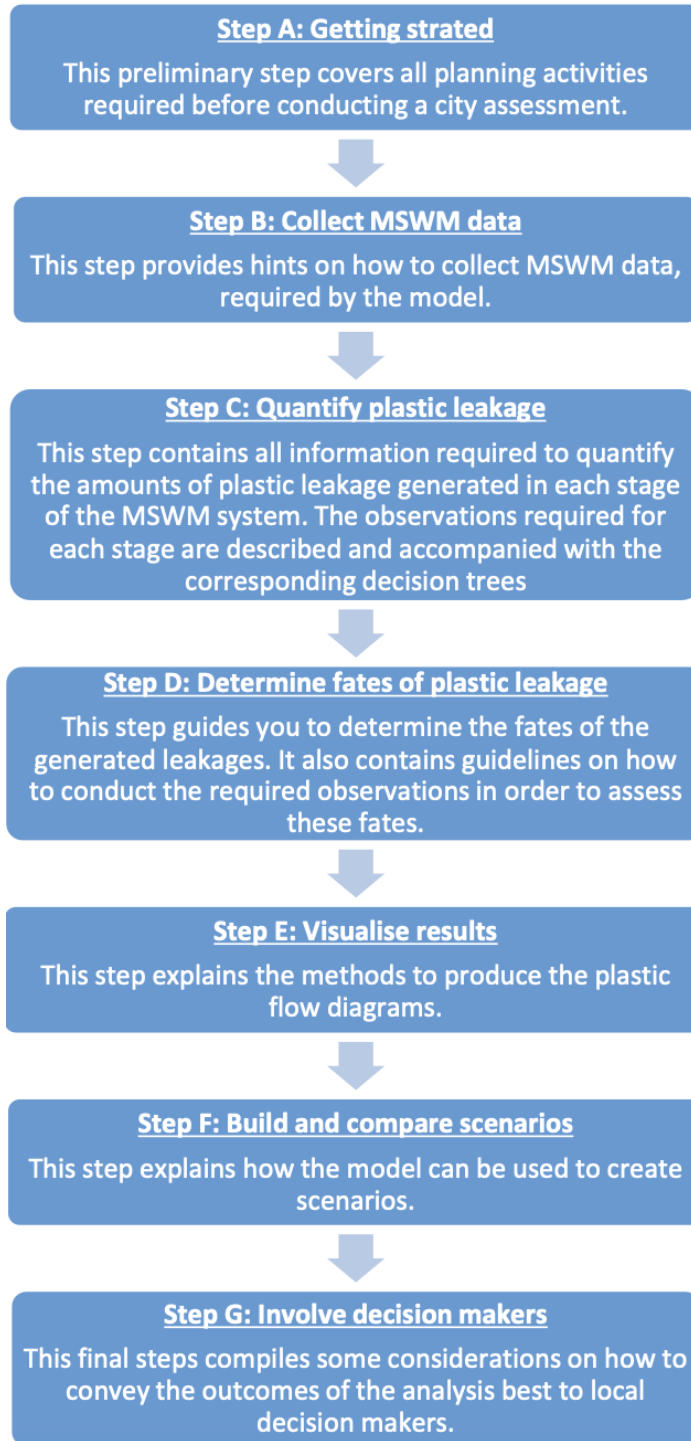
The Waste Flow Diagram (WFD) methodology, developed through a collaboration between GIZ, the University of Leeds, EAWAG and Wasteaware in 2020 aims at mapping the flows of waste in municipal SWM systems and quantifying the source and fate of plastic pollution[2].

The methodology builds on the monitoring of the SDG 11.6.1 through the WaCT, complemented by observation based assessment of sources and fate of plastic leakages. The WFD tool provides (i) an estimate of plastic leakage into the environment for each stage of SWM (generation, collection and transport, sorting and recovery, final disposal) and (ii) an estimate of the distribution of this leakage by fate (retained into land, burnt, drainage and into water systems).

The result of the WFD for Songkhla, Hat Yai, Surat Thani and Koh Samui cities will be presented through a Sankey diagram as below:



The steps to apply the WFD are as follows:



[2] <https://plasticpollution.leeds.ac.uk/toolkits/wfd/>

[1] <https://unhabitat.org/wwc-tool>

b. Scope

The endline assessment should be completed in no more than 3 months, with approximately 1 month for preparation work, 1 month for fieldwork, and 1 month for analysis, consultation and reporting. The preparatory period should include obtaining the necessary permits to access disposal facilities, as well as other relevant permits.

The scope of the consultancy includes:

- 1) Conduct assessment of WaCT and WFD for Songkhla, Hat Yai, Surat Thani and Koh Samui cities, to obtain data on the solid waste management system and plastic leakage of the city. The consultant shall provide information on the parameters in Table 1:

Table 1:		
#	Type of data points	Methodology
1	Total MSW generated (t/year); Average per capita waste generation per income level (t/cap/year); Total household generated in the city (t/year)	WaCT steps 2 and 3
2	Characterization of household waste; waste composition per income level	WaCT step 2
3	List of non-household waste generators interviewed and total non-household waste generated	WaCT step 3
4	Total MSW collected (t/year)	WaCT steps 4 and 5
5	List of recovery facilities interviewed and total amounts of MSW received in facilities (per material type) (t/year)	WaCT step 4
6	Level of control of recovery facilities	WaCT Step 4
7	List of disposal facilities interviewed and total MSW received in disposal facilities (t/year)	WaCT step 5
8	Characterization of disposed waste	WaCT step 6
9	Level of control of disposal facilities	WaCT Step 5
10	SDG 11.6.1 scoring for the two sub-indicators: 1) % of MSW collected over total generated MSW and b) % of MSW managed in controlled facilities over total generated MSW	WaCT (results from all steps)
11	Total plastic leakage (KG/Cap/year)	WFD
12	Plastic leakage to water systems	WFD

- 2) Analysis of results
 - Comparison of baseline and endline assessment results

- Present key MSW differences in the city since the baseline study
- Fill in fact sheet for assessments
- Compile report using the provided template presenting comparison and findings from the analysis

E. CONSULTANT PROFILE

- Minimum of 5 years of relevant experience in municipal solid waste management, for example:
 - Baseline MSW surveys
 - Planning and evaluation of MSW management systems
 - Developing MSW policies and regulations
 - Understanding economic and financial aspects of MSW
 - Working with stakeholders across the service and value chain
- Understanding of the targeted city, country or region, for example:
 - National MSW sector framework conditions
 - Regional/local MSW legal/institutional/organisational arrangements
- Other skills, for example:
 - Familiarity of the survey tools (WaCT, WFD)
 - Analytical skills
 - Communications/stakeholder consultation skills
- Experience in preparing high quality written outputs
- Experience in organising and moderating stakeholder consultation meetings
- Excellent computer literacy (Microsoft: Word, Excel, and PowerPoint)
- Languages:
 - At least one team member with fluency in spoken and written English
- The Consultants should propose a team which consists of two Key Experts, involved in fieldwork, and a pool of experts to complement additional expertise.
 - Team Leader: Responsible for project management and liaison with WWF. MSW management experience preferably with national/regional/local experience.
 - Survey expert: Responsible for conducting the field surveys. Strong analytical skills, understanding of MSW data, organisational and logistical skills.
 - Pool of experts: As required to complement the key experts for the complete delivery of the project.

F. DELIVERABLES AND TIMELINE

- WaCT and WFD to be submitted in the methodologies' excel sheets with accompanying fact sheet/diagram
- Inception report, including fieldwork plan
- Draft report
- Final report presenting comparison and analysis in English and Thai language
- Inception report and final report to be submitted in Word and PDF, with Arial font, size 11, 1.5 space.

Table 2:			
#	Deliverable	Timeline	Comments
1	Inception report: Fieldwork plan report	3 weeks	To be reviewed by WWF
2	Draft report	8 weeks	To be reviewed by WWF
3	Final report	10 weeks	To be reviewed by WWF
4	Presentation of report to WWF	12 weeks	

G. REQUIRED DOCUMENTS

All bidding experts are required to submit the following documents:

- A detailed and updated CV of consultants, experts, researchers
- A financial proposal for the required timeframe as provided by this TOR
- A summary of relevant services provided, and milestones achieved during the past 3 years including daily/hourly rate of each of the assignments using the table format below:

Consulting/ Employment or Assignment Undertaken	Organization/Client name/location and contact person	Duration of assignment	Daily/hourly rate charged by consultant	Accomplishment/ Deliverables

- It is mandatory to submit documentary evidence demonstrating their legal, taxation and financial status. This includes:
 - Tax identification number (TIN);
 - Proof of a segregated account (providing the name and address of such account);
 - A signed statement testifying that all information contained within the proposal is correct and true.

H. SUBMISSION OF INTEREST

To express interest for this consultancy, submit a brief proposal, the CV of the team members, and two references to Boonchanit Wongprapinkul at boonchanitw@wwf.or.th cc. jutamartn@wwf.or.th and procurement@wwf.or.th by **November 17, 2024**. The subject line of the email must be marked with the title: "PLASTIC SMART CITY- TV ACTION – ENDLINE ASSESSMENT".