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Secretariat of the Pacific Regional Environment Programme

PacWastePlus
PACIFIC WASTE MANAGEMENT

This initiative is supported by **PacWastePlus**-a 85-month project funded by the European Union (**EU**) and implemented by the Secretariat of the Pacific Regional Environment Programme (**SPREP**) **to sustainably and cost effectively improve regional management of waste and pollution.**

*This has been produced with assistance from the **European Union**. Its contents are the sole responsibility of **SPREP** and do not necessarily reflect the views of the European Union.*

Palau National Waste Audit Analysis Report

June 2025

This Waste data collation, analysis and reporting for the Palau National Waste Audit Analysis Report was guided by the overarching Regional Waste Data Collection, Monitoring, and Reporting (DCMR) Framework for the Pacific Island Countries and Territories (PICT).

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Our vision: A resilient Pacific environment sustaining our livelihoods and natural heritage in harmony with our cultures.

PacWaste Plus Programme

The Pacific – European Union (EU) Waste Management Programme, PacWaste Plus, is a 72-month programme funded by the EU and implemented by the Secretariat of the Pacific Regional Environment Programme (SPREP) to improve regional management of waste and pollution sustainably and cost-effectively.

About PacWaste Plus

The impact of waste and pollution is taking its toll on the health of communities, degrading natural ecosystems, threatening food security, impeding resilience to climate change, and adversely impacting social and economic development of countries in the region.

The PacWaste Plus programme is generating improved economic, social, health, and environmental benefits by enhancing existing activities and building capacity and sustainability into waste management practices for all participating countries.

Countries participating in the PacWaste Plus programme are: *Cook Islands, Democratic Republic of Timor-Leste, Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu*.

Key Objectives

Outcomes & Key Result Areas

The overall objective of PacWastePlus is "*to generate improved economic, social, health and environmental benefits arising from stronger regional economic integration and the sustainable management of natural resources and the environment*".

The specific objective is "*to ensure the safe and sustainable management of waste with due regard for the conservation of biodiversity, health and wellbeing of Pacific Island communities and climate change mitigation and adaptation requirements*".

Key Result Areas

- **Improved** data collection, information sharing, and education awareness
- **Policy & Regulation** - Policies and regulatory frameworks developed and implemented.
- **Best Practices** - Enhanced private sector engagement and infrastructure development implemented
- **Human Capacity** - Enhanced human capacity

Learn more about the PacWaste Plus programme by visiting

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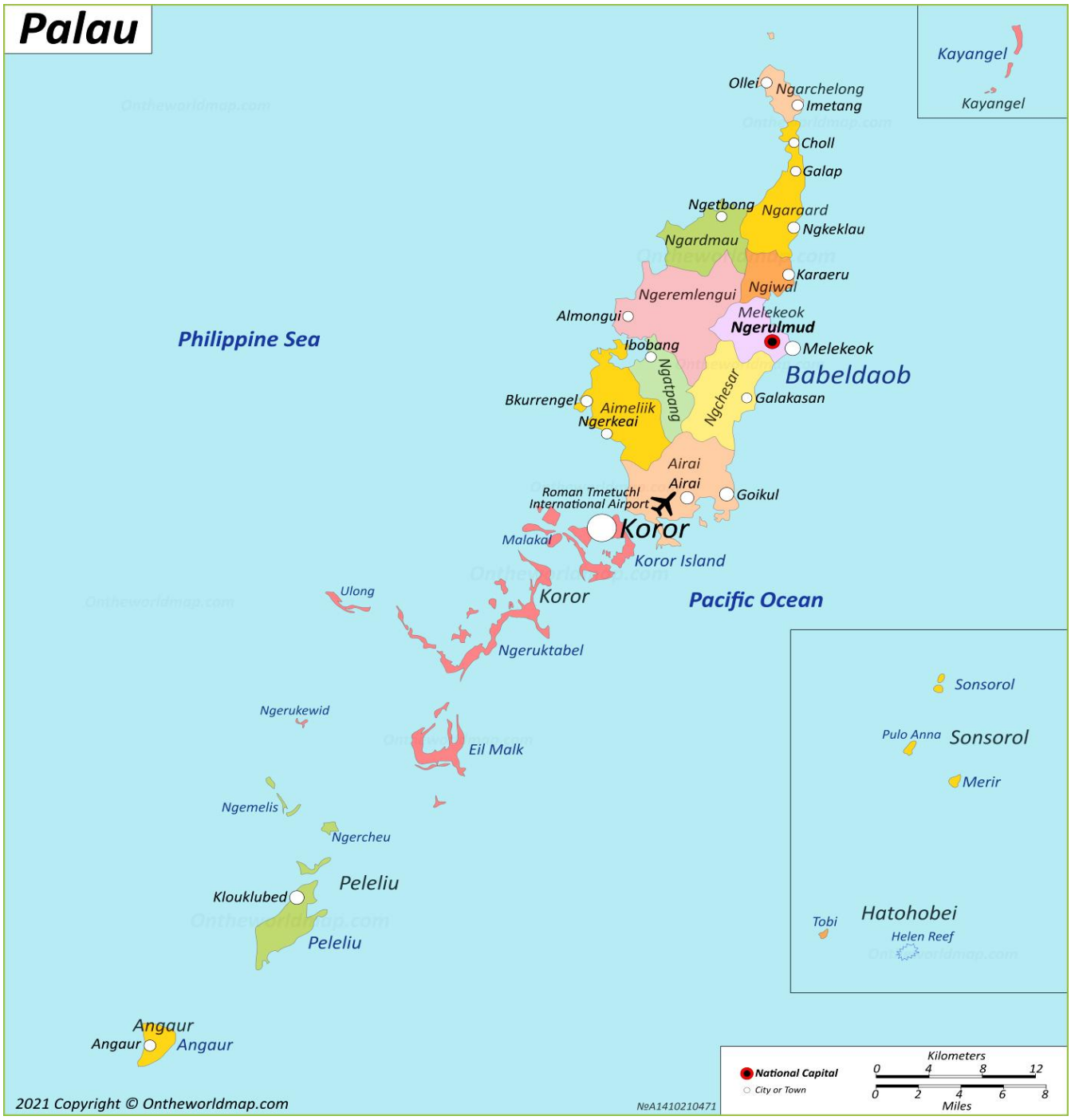
PacWastePlus PACIFIC WASTE MANAGEMENT

www.pacwasteplus.org

Table of Contents

Map of Palau



Source: https://ontheworldmap.com/palau

Glossary

Acronym	Definition
C&D	Construction and Demolition (Waste)
C&I	Commercial and Industrial (Waste)
DCMR	Data Strategy & Collection, Monitoring, and Reporting (Framework)
KPI	Key Performance Indicator
MEA	Multilateral Environmental Agreement
MSW	Municipal Solid Waste (i.e., waste originating from the general public that is typically managed by local government entities, excludes commercial / business waste)
NS Strategy	Palau's National Solid Waste Management Strategy (2017-2026)
PICT	Pacific Island Countries & Territories
PRIF	Pacific Regional Infrastructure Facility
SPREP	Secretariat of The Pacific Regional Environment Programme
UNEP	United Nations Environment Programme

Terminology	Definition
Capacity	The total maximum waste storage and processing that can take place at a facility (as capped by license conditions).
Capture rate	The proportion of total waste generated that is successfully captured and disposed or recovered in an environmentally responsible manner (e.g., by a formal collection service or self-hauled to a licensed facility)
Coverage	The proportion of total households that have access to a regular waste collection service.
Modern	A 'modern' facility employs 'sound waste management practices' (as defined by the UNEP) and results in minimal adverse impacts on the environment. A 'modern' facility must be licensed, staffed, and have access to equipment and machinery such as a bulldozer. A landfill or dumpsite must employ a leachate management system and a daily cover routine. A recovery facility should have fire prevention and control measures in place, and appropriate stormwater runoff controls. Facilities must not be exceeding their maximum storage capacity.
Per capita	Units measured on a per person basis (i.e., to allow for extrapolation over a national population).
Recovery	Any activity that diverts waste material from landfill, including processing of dry recyclables (such as paper, cardboard, metal and plastics such as PET and HDPE), organics recovery, and energy recovery.
Unregulated	Typically, unlicensed waste facilities which do not follow international frameworks, rules, and guidelines to protect the health of the environment and community.
Waste facility	'Waste facilities' involved in the handling, disposal, or recovery of waste streams above a minimum processing threshold determined on country basis (i.e., tonnes of waste received per year). Can include landfills or dumpsites (that primarily rely on burying waste in a controlled manner), recycling / recovery facilities for dry recyclables (and e-waste), organics recovery facilities, and waste-to-energy facilities. Incinerators are not included in this analysis.

Executive Summary

Waste data collation, analysis and reporting for the Palau National Waste Audit Analysis Report was guided by the overarching Regional Waste Data Collection, Monitoring, and Reporting (DCMR) Framework for Pacific Island Countries and Territories (PICT). The implementation of the DCMR Framework ensures that waste data is collected, analysed, and reported in a consistent and reliable way across the Pacific.

Table (a) Summary of Key Performance Indicators (KPIs) for Palau

Core KPIs	Result	Supplementary KPIs	Result
1. Count / capacity of modern waste facilities	5/ Capacity unknown	1. Cost of disposal to landfill ($/annum)	No data
2. Count / capacity of unregulated waste facilities	2 / Capacity unknown	2. Weight of waste disposed (tpa)	8082
3. National recovery rate (%)	22%	3. Weight of waste recovered (tpa)	2250.26
4. Per capita waste generation rate (kg/capita/year)	82.4	4. Volume and type of stockpiled hazardous waste (m^3)	Asbestos: 0 E-Waste: 0 Healthcare and pharmaceutical waste: no data Used oil: 1892.71 m3 Used tyres: 13,839 Obsolete chemicals: 0
5. Municipal Solid Waste (MSW) composition (%)	See Figure (a)	5. Marine plastic pollution potential (tpa)	69.12
6. Household waste capture rate (%)	65%	6. Awareness and support of waste management services (%)	89%
7. Household collection service coverage (%)	66%	7. Proportion of strategic waste management initiatives implemented (%)	73%
8. Fulfillment of MEA reporting requirements (%)	43%	8. Commercial waste capture rate (%)	96%
		9. Commercial collection service coverage (%)	96%
		10. Total weight of disaster waste disposed (tpa)	0

Note: 'No data' indicates that the audit did not capture the parameters / measurements necessary to calculate the KPI.

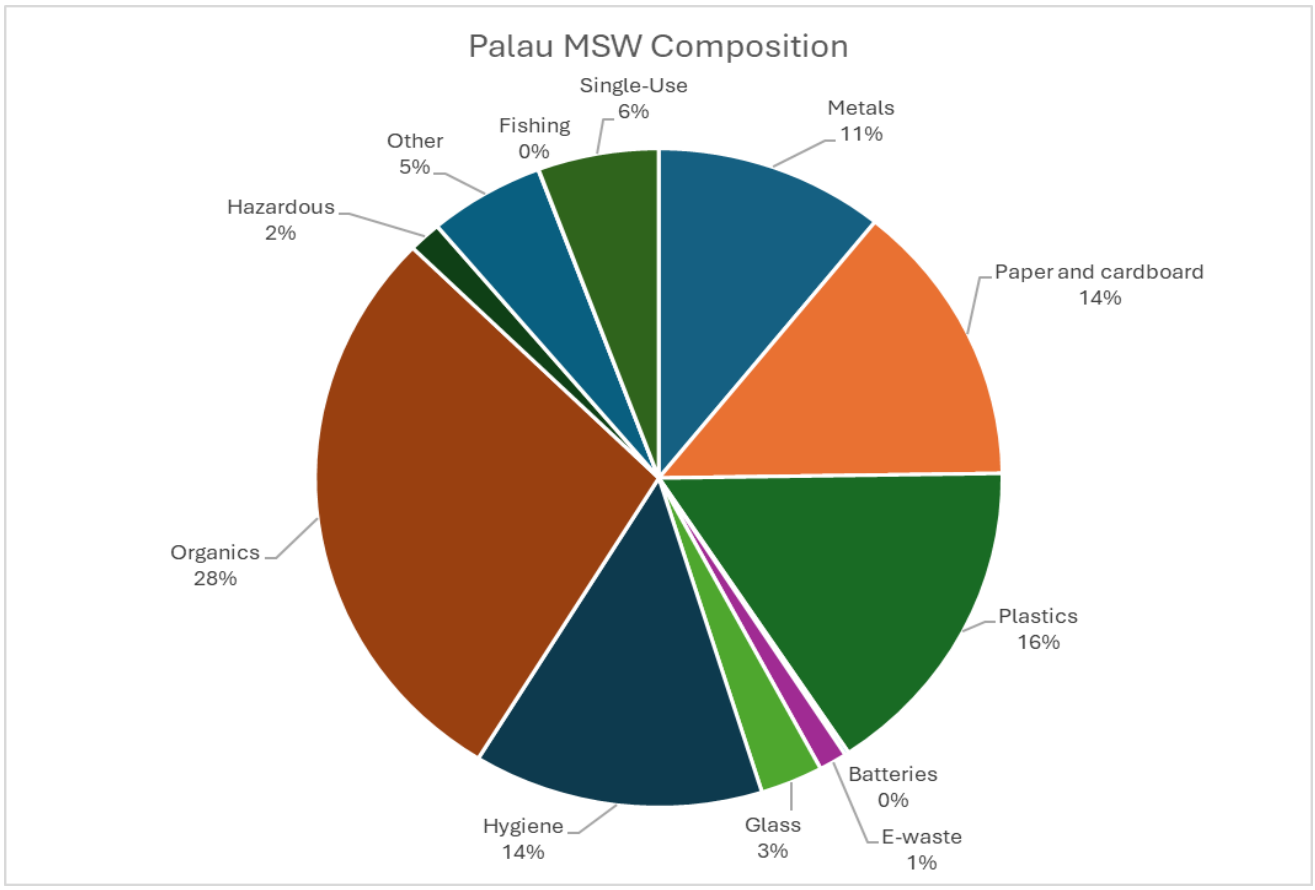


Figure (a) Palau Municipal Solid Waste (MSW) Composition (% by weight)

1 Introduction

1.1 Background

Palau is one of fifteen Pacific Island Nations taking part in the PacWaste Plus Programme implemented through SPREP and funded by the European Union Delegation of the Pacific. PacWaste Plus aims to improve waste management activities across the islands and strengthen the capacity of Governments, industries, and communities to manage wastes to protect human health and the environment.

Palau has implemented several waste management practices aimed at reducing waste generation, increasing, and promoting recycling, as well as minimising the environmental impact of the country's landfilling of wastes. From 2011 to 2019, Palau imported over 140,000,000 beverage containers via its Container Deposit Scheme (CDS), of which more than 123,000,000 containers were recovered, achieving an 85-90% recovery rate. Recovery rates for other recyclables, such as motor vehicles, scrap iron, ferrous metal, and aluminium cans, have also been encouraging.

Additionally, the Koror State Recycling Centre houses various recycling facilities, including the National Redemption Centre, an energy recovery facility, a composting facility, and a glass blowing facility. Established and operated by the Koror State Government, the centre achieved a 12% recycling rate for the waste generated in Koror and Babeldaob in 2017. Recyclables are segregated and processed at the centre, with residual waste sent to landfill. The National Redemption Centre, which began operating in 2011, receives and processes beverage containers. The state government also runs 42 segregation stations across the state. The recycling fund from the CDS generates sufficient income to support national landfills and awareness campaigns, with residents of Koror State not required to pay for waste collection and disposal services.

Despite the above achievements in resource recovery, the majority of waste generated in the nation still ends up in landfills and dumpsites across the country. Palau's 2019 State of the Environment report revealed that the total amount of waste produced in the country is increasing in correlation to its GDP (Gross Domestic Product). The report also indicates that the increase in total waste generation is outpacing the efforts to reduce, reuse or recycle waste through Palau's waste recovery programs.

1.2 Purpose and Aim

The purpose of this audit analysis and report is to establish a baseline position for Palau waste and waste management systems.

The aim of this report is to:

- Validate pre-existing national waste audit data;
- Collect additional data to inform data gaps from the Cook Islands 2023 National Waste Analysis Report; and
- Build national waste insights based on new key performance indicators (KPIs) to understand waste management trends.

The results presented in this report, and the other fourteen country waste data analysis reports, will be collated together to inform a broader Pacific Regional Data and Audit Analysis Report.

1.3 Scope

The scope of this waste audit analysis report is limited to the following waste data collected in Palau:

- **Palau Waste Audit Report 2019**: The audit was undertaken by Asia Pacific Waste Consultants in November 2019 and provided an evaluation of household and business waste generated in Palau. Audit data and information was obtained via interviews and waste collections from 207 households of which 177 participated in interviews, and 39 businesses, followed by sorting and weighing. The audit report also provided an assessment of the state of Palau's landfills including landfill audits and stockpile assessments.
- 2020 Palau Population and Housing Census
- 2023 National Waste Audit Analysis Report

- 2025 Additional Data collection & Consulting Waste Facility Register

This national report examines the MSW, commercial and industrial (C&I), disaster waste and landfill waste streams. Landfills may receive a broad array of waste types, including construction and demolition (C&D) waste, hazardous waste, and other types of waste in addition to MSW and C&I waste. As such, landfill waste is considered a separate waste stream.

The potential for marine plastic pollution is considered for macroscopic plastic waste (i.e., plastics that can be identified through compositional audits) originating from household sources. Accurate data on the amount and management of macroscopic plastic waste in the region is limited.

1.4 Country Overview

The Republic of Palau is a group of 340 coral and volcanic islands, eight of which are inhabited, located in Southwest Micronesia (a map is provided on page 4). Palau has a land area of 459 square kilometres and a coastline stretching over 1,519 kilometres. The country is home to over 17,000 people, with 78% of the population residing in urban areas, and 22% of the population in rural areas. Palau's total population is declining at a rate of about -0.05% annually. Around 70% of the population of Palau resides in the state of Koror, which is the most urbanised state amongst all of Palau.

Palau has developed significant environmental legislation and strategies for solid waste management, most notably the *Solid Waste Management Plan (2006-2016)* and *National Solid Waste Management Strategy (2017-2026)* (NSWMS). There is no overarching Solid Waste Act, but rather a combination of various laws and regulations.

The responsibility for managing solid waste is divided among various institutions in Palau include:

- National government: The Palauan national government has the responsibility of creating legislation, strategies, and policy frameworks for waste management. It is also responsible for solid waste management through the Bureau of Public Works, which includes infrastructure planning, managing the national landfill, and raising public awareness about solid waste management issues. Additionally, the government coordinates with state governments to address solid waste issues and implement the NSWMS.
- State government: The state governments of Palau are responsible for household waste collection, the management of recycling facilities and projects, dumpsite management, composting programs, and waste education programs.

Beyond this, private recycling companies have a contractual arrangement with public entities to provide waste management and pollution control services.

2 Methodology

Waste data collation, analysis and reporting was guided by the overarching Regional Waste Data Collection, Monitoring, and Reporting (DCMR) Framework for the Pacific Island Countries and Territories (PICT). The implementation of the DCMR Framework ensures that waste data is collected, analysed, and reported in a consistent and reliable way across the Pacific.

2.1 Data Sources

Data collated and examined in this audit analysis report was sourced from the data sources listed in **Table 1.**

Table 1 Data sources examined and available data

Data Source	Year	Location/s	Sample Size/s	Method for Data Collection	Reported Data	Notes
Palau waste audit	2019	Nationwide	The quantitative audit sampled 207 households and 39 businesses, 177 households participated in interviews.	Commercial and household compositional waste audits, commercial and household community surveys.	Commercial and household waste composition and qualitative survey responses.	Used to inform 2023 Palau National Waste Audit Analysis Report.
Palau National Waste Audit Analysis Report	2023	Nationwide	The National Waste Audit Analysis Report uses data from the Waste Audit Report outlined above.			
Waste Facility Register	2025	Nationwide	5 waste facilities.	The Waste Facility Register is a written survey that can be completed on Word, Excel, Kobo Toolbox, or something similar.	Facility details.	
National Census	2020	Nationwide			Population and household data.	

2.2 Data Analysis

The datasets listed in the table above were analysed for relevant information to be collated into PICT specific databases. The extracted data was then used to calculate the 18 KPIs according to the calculation methodologies as detailed in the DCMR Framework. The main assumptions made and challenges met during the analysis are discussed below. \

Where it was necessary to modify calculation methodologies or assumptions (e.g. in cases of missing data or when certain parameters had to be calculated using assumptions derived from external data sources like census data), details of the changes are provided under the corresponding KPI in section 3.0

2.2.1 Main Assumptions

- The audit data provided for 'urban' areas (Koror), 'semi-urban' areas (Badeldaob), and 'rural' areas (Badeldaob, Kayangel, Angaur) (see Table 2) is assumed to be representative of the rest of the country.
- All population estimates used to calculate performance indicators are based on national census data from 2020, while the waste audit was completed in 2019.
- All waste plastics which are not managed in an environmentally sound manner are assumed to have the potential risk of polluting oceans and estuarine waterways.
- Commercial waste service coverage reporting has relied primarily on survey information conducted during audits of commercial business waste.

2.3 Main Challenges

Collecting new data through the waste facility registers within the short timeframes proved challenging, resulting in incomplete data for this report. Gaining information regarding specifically capacity of facilities across the country has been a challenge. Obtaining data in simple and transferable forms has also proved challenging in calculating KPIs as per the DCMR framework.

Accurate and comprehensive waste data is limited, particularly for household and commercial waste generation, waste flows, and legacy stockpiles. Incomplete or outdated data makes it difficult to monitor performance.

2.4 Key Performance Indicators

The DCMR Framework introduces a series of KPIs (see Table 2). The KPIs were developed to guide data analysis with the aim of improving the efficiency of data collection activities by building on pre-existing data collection practices across the region.

Each of the KPIs were designed to be reported to using corresponding data collection methodologies, these are:

- a waste facility register
- household waste audits and community surveys
- business waste audits and surveys
- a policy survey
- landfill and stockpile audits

Table 2 Key Performance Indicators (KPIs) from the DCMR Framework

Core KPIs	Supplementary KPIs
1. Count / capacity of modern waste facilities	1. Cost of disposal to landfill
2. Count / capacity of unregulated waste facilities	2. Weight of waste disposed
3. National recovery rate	3. Weight of waste recovered
4. Per capita waste generation rate	4. Volume and type of stockpiled hazardous waste
5. Municipal Solid Waste (MSW) composition	5. Marine plastic pollution potential
6. Household waste capture rate	6. Awareness and support of waste management services
7. Household collection service coverage	7. Proportion of strategic waste management initiatives implemented
8. Fulfillment of Multilateral Environmental Agreement (MEA) reporting requirements	8. Commercial waste capture rate
	9. Commercial collection service coverage
	10. Total weight of disaster waste disposed

3 Audit Analysis Results

3.1 Summary of Data Availability

The waste audits provided varying levels of data and information for the purposes of calculating performance via the indicators introduced in the DCMR Framework. The extent to which there was adequate data and information to calculate the KPIs is represented below in **Table 4.**

Table 4 - Summary of data availability for reporting against DCMR Framework

Core KPIs		Supplementary KPIs	
1. Count / capacity of modern waste facilities		1. Cost of disposal to landfill	
2. Count / capacity of unregulated waste facilities		2. Weight of waste disposed	
3. National recovery rate		3. Weight of waste recovered	
4. Per capita waste generation rate		4. Volume and type of stockpiled hazardous waste	
5. Municipal Solid Waste (MSW) Composition		5. Marine plastic pollution potential	
6. Household waste capture rate		6. Awareness and support of waste management services	
7. Household collection service coverage		7. Proportion of strategic waste management initiatives implemented	
8. Fulfillment of MEA reporting requirements		8. Commercial waste capture rate	
		9. Commercial collection service coverage	
		10. Total weight of disaster waste disposed	

Legend

Calculated with additional data	Calculated in Previous Report	No data

Note: 'No data' indicates that the audit did not capture the parameters/measurements necessary to calculate the KPI.

KPIs 1 and 2 could not be calculated due to the absence of provided data on facility capacity. While this does not necessarily mean the data does not exist, it was requested but has not yet been provided.

KPI 3 was calculated using available data on resource recovery; however, it does not capture recovery from organic waste or smaller-scale initiatives that may be occurring across the country.

SKPI 1 could not be calculated because operating cost data was not made available.

Improved and more comprehensive data collection across all KPIs would provide a more accurate and complete picture of the waste landscape in Palau..

3.2 KPI Reporting Results

The following sections present the results of the collated and analysed waste audit data for each of the eight core and ten supplementary KPIs introduced in the DCMR Framework. The results of the analysis will serve as a baseline position for Palau to compare future data to, and to guide subsequent waste management or waste data related activities.

Core KPI 1: Count / capacity of modern waste facilities

Result	**Count of modern waste facilities: 5**
	• National Landfill is the new landfill (2021)
	• The landfill M Dock has now closed to the public and is only used to bury about 12 dead dogs per week from the pound/vet and will be closed completely soon.
	• The recycling centre based at the national landfill has a:
	  ○ Redemption centre for CDL containers. CDL has a 10-cent tax on all beverage containers (PET, aluminium). 5 cents is refunded, 2.5 cents goes to the Koror state waste management office, and 2.5 cents goes to national government.
	  ○ Composting facility that has been operational since 2009, taking food, paper, garden waste – all self-haul
	  ○ Glass blowing workshop that uses post-consumer glass bottles
	  ○ Pyrolytic Energy Recovery Centre that takes non-PET plastics and make bio-fuel that is used to generate power for their facility. 1kg of plastic makes 1 litre of oil = 4kw of energy. Only use 6kw of power per day.
	Capacity of modern waste facilities (tonnes per annum): No data

Assumptions	None
Data gaps	• No data was provided on the capacity of these facilities.
Key considerations	• Other features of these facilities include: • A compost incentive scheme, where residents receive a free bag of compost for every 30kg of plastics they bring in. • An urban growers programme that creates garden table beds using materials salvaged from the landfill, which are then distributed to residents of Koror. • A home biogas trial, aiming to assess whether it can generate enough gas to support operations at the glass-blowing plant.

Core KPI 2: Count / capacity of unregulated waste facilities

Result	**Count of unregulated waste facilities: 2** • There are two unmanned dumpsites with no data available, located in Peleliu State and Angaur State. • Nine old dumpsites on the main island were closed following the opening of the new landfill.. **Capacity of unregulated waste facilities (tonnes per annum): No data**.
Assumptions	None
Data gaps	• No data is available on what goes into these dumpsites, they are both unmanned.
Key considerations	• On the outer islands waste is buried in backyards (only about 50 pax on one island and 80 on the other) • Old M-dock landfill that is closed is not counted in this, but is used to bury dead dogs from pound/vet, not for much longer.

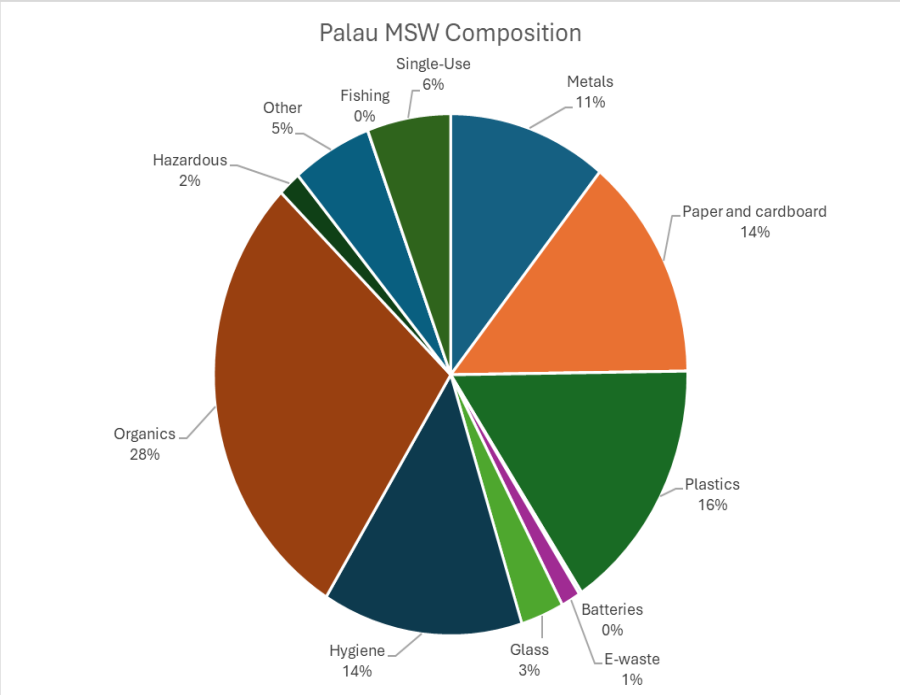
Core KPI 3: National recovery rate

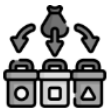
Results	**National recovery rate (%): 22 %** • There is a total of 10332.26 of waste received across all facilities that record and supplied data via the waste facility registers • 2250.26 tonnes of this was recorded to be recovered through various activities, including the CDL scheme in place in Palau.
Assumptions	This calculation does not include waste created that is not disposed of at a regulated site, waste that is disposed of at home or at dumpsites is not included.
Data gaps	• CDL data was provided in units, proxy data for converting the units into weights was used.
Key considerations	• Weigh bridges and weights of CDL would assist in creating more accurate recovery data. • Continuous reporting on both waste and recovery data will assist in calculating this KPI in the future.

Core KPI 4: Per capita waste generation rate

Results	**Per capita waste generation rate (kg/capita/year): 82.4** – kg/capita/day: 82.4 – kg/household/day: 289.27
Assumptions	• Household waste audit data was converted from a per household basis to a per capita basis, then grouped and averaged based on geographic zoning (i.e., rural, or urban), and extrapolated using census data of the national population. • Per capita information based on 2020 census results.
Data gaps	• 7 out of 16 states in Palau were sampled. No data is available for remaining states. The sampled states represent about 85% of the population.
Key considerations	• Future per capita waste generation rates will provide insight into waste management trends and changes for Palau..

Core KPI 5: Municipal Solid Waste (MSW) Composition

Results	Organic waste is the most prevalent waste type found in household waste compositions (in Palau). This is followed by plastic as indicated below. – Organics 28.50% – Plastic 15.91% – Paper and Cardboard 13.95%  Figure 1 Palau Municipal Solid Waste (MSW) composition (% by weight)
Assumptions	• None, data used from the audit.
Data gaps	• Categories presented are based the PRIF waste audit guidelines. Past audits may record different categories.
Key considerations	• The prevalence of organics in the household waste stream is likely due to reliance on local subsistence agriculture, as rural communities often have fewer options for food and goods, which can result in a greater reliance on locally grown or produced items. • Organics recovery systems, such as a local or national composting service could help support local farmers and reduce the amount of organic waste destined for landfill. • It is recommended that compositional data is updated data on a regular basis. Impacts of the pandemic and climate change or weather events will have changed the proportions of waste types sourced from households. • Household waste compositions provide an insight into the types of waste contained inside the MSW stream. Knowledge of the waste types and proportion of these wastes present within the household waste stream allows for targeted decision making and prioritisation of problem waste types.



Core KPI 6: Household waste capture rate

Results	**Household waste capture rate (%): 65%** – Total weight of household waste generated = 1232 tpa – Total weight of household waste captured responsibly = 804 tpa
Assumptions	• This calculation was made using weighted audit data.
Data gaps	• The audit data was weighted across population.
Key considerations	• The audit did not quantify household disposal methods and did not provide a breakdown of waste capture by state. Therefore, the presented performance indicator is not a true measurement of household waste capture rate in Palau.

Core KPI 7: Household collection service coverage

Results	**Household collection service coverage (%): 66%**
Assumptions	• This statistic is using weighted audit data, excluding business responses from the survey. • Calculated based on information from 2020 census data: – Number of households
Data gaps	• The audit did not include a survey, therefore the KPI could not be calculated using the DCMR framework methodology
Key considerations	• The KPI may change if a fuller survey across Palau is completed.

Core KPI 8: Fulfillment of Multilateral Environmental Agreement (MEA) reporting requirements

Results	**Fulfillment of MEA reporting requirements (%): 43.03%** Convention / Status / Reporting requirements / Reports delivered **Basel Convention** / Accession / Annual reports (11) / 1 **Minamata Convention** / Ratified / First national reports due 2021 (1) / 1 **Stockholm Convention** / Ratified / 5 reporting cycles (5) / 1
Assumptions	• Only MEA's with mandatory reporting requirements were included in the calculation of this KPI. • MEA's without strict reporting requirements are not included in the calculation.
Data gaps	None
Key considerations	• Palau has satisfied the reporting requirements for the Minamata convention on Mercury. However, Palau is behind on national reports for the Basel and Stockholm conventions.

Supplementary KPI 1: Cost of disposal to landfill

Results	**Cost of disposal to landfill ($/tonne): No data**
Assumptions	None
Data gaps	• No information presented in audit reports on the annual facility operating cost for any facilities. • Insufficient information to calculate the annual quantity of waste disposed (tpa).
Key considerations	• Completion of the waste facility register suggested by the DCMR Framework will provide sufficient data to accurately calculate this indicator and a benchmark for comparing disposal costs against previous periods, other countries, and the region.

Supplementary KPI 2: Total weight of waste disposed

Results	**Total weight of waste disposed (tonnes per annum): 8082**
Assumptions	None
Data gaps	• This KPI has been calculated using only waste data provided by operators that are collecting data. • This is no representative of dumpsites or waste managed on personal land.
Key considerations	• This data could be more accurate if data was collected from household waste management or dumpsites.

Supplementary KPI 3: Total weight of waste recovered

Results	**Total weight of waste recovered (tonnes per annum): 2250.26**.
Assumptions	CDL data was provided in units, proxy data for converting the units into weights was used.
Data gaps	• This data is collected from recovery centres highlighted by the waste facility registers. Does not include tonnages of recovered organic waste.
Key considerations	• Palau has successfully established a waste recovery system.

Supplementary KPI 4: Volumes of stockpiled hazardous waste

Results	**Volumes of stockpiled hazardous wastes (m^3):** – Asbestos: 0. banned on island. Only legacy asbestos in sewer pipes (landfilled when required) – E-waste: 415 – Healthcare and pharmaceutical waste: 0. Incinerated, no stockpiles. – Used oil: Collected by Utilities Corporation in Aimeliik state, stockpiled and then shipped to Philippines. Current stockpile is 500,000 US Gallons – Used tyres: 13,839 – Obsolete chemicals: stockpiles were shipped out in 2024. No current stockpiles
Assumptions	Assuming that the used tyres quantities have not changed since the 2023 report was written.
Data gaps	• Missing information on asbestos, healthcare and pharmaceuticals
Key considerations	• The volume of other hazardous waste stockpiles in Palau remains unknown.

Supplementary KPI 5: Marine plastic pollution potential

Results	**Marine plastic pollution potential (tonnes per annum): 69.12**
Assumptions	• Assumes a national weight of mismanaged waste, based on household audit samples. – This calculation uses the total weight of waste generated, subtracted by the weight of waste captured by collection services. The difference is the estimate for mismanaged waste used in this calculation. – Mismanaged waste is defined as all waste which is not captured in collection services, and ends up buried / burned / littered etc. – Uses proportion of plastics captured in MSW composition.
Data gaps	• Requires a more reliable metric for mismanaged waste.
Key considerations	• Waste plastics which are not managed in an environmentally sound manner are assumed to pose a significant risk of polluting oceans and estuarine waterways. • Significant issues with marine pollution along the coastlines – a half-day cleanup collected 3 tonnes of waste, much of which is believed to have blown in from the Philippines.

Supplementary KPI 6: Awareness of waste management services

Results	**Awareness of waste services (%): 89**
Assumptions	Responses to the household survey question on waste collection service ratings were analysed. All responses with a rating above 3 were classified as positive. The proportion of positive responses was then calculated based on the total number of participants, all of whom reported having access to waste collection services. For the purposes of this analysis, access to services was assumed to equal 1.
Data gaps	• No specific survey on awareness of waste services was completed, calculations based on assumptions.
Key considerations	• Completion of community survey in the future is required to report to this KPI. Monitoring the community's awareness provides an indication of the success of education initiatives and effective use of existing waste management services.

Supplementary KPI 7: Proportion of strategic waste management initiatives implemented

Results	**Proportion of waste management initiatives implemented (%): 73.33%** – Number of successfully implemented waste initiatives = 11 out of 15 – Number of planned/pipeline initiatives = 4 • Implemented initiatives include: – National Solid Waste Management Strategy: The Roadmap towards a Clean and Safe Palau 2017 to 2026 – Palau Responsible Tourism Policy Framework 2017–2021 – Plastic Bag Use Reduction Act, RPPL No. 10-14 2017 • Pipeline initiatives include: – Review of National Solid Waste Management Strategy 2017 to 2026 – Chemical Waste Management System – CDS Expansions
Assumptions	None
Data gaps	None
Key considerations	• Palau's foremost waste initiative is the *National Solid Waste Management Strategy: The Roadmap towards a Clean and Safe Palau 2017 to 2026*.

Supplementary KPI 8: Commercial waste capture rate

Results	**Commercial waste capture rate (%): 96**
Assumptions	• The total amount of commercial waste generated was estimated by first calculating the average amount of waste produced per employee, based on waste audit data. This per-employee figure was then multiplied by the total number of employees in Palau, as reported in the census. • To estimate the amount of commercial waste managed by formal services, the total commercial waste generated was adjusted using the commercial collection service coverage rate.
Data gaps	• There was no direct figure for commercial waste created or captured
Key considerations	• Accurate calculation relies on an estimate of total businesses in country, total commercial waste generated, and commercial waste generation rates. • Completion of community surveys will provide an indication of how many businesses are using collection services, and other forms of waste management, and to what extent businesses use the service.

Supplementary KPI 9: Commercial collection service coverage

Results	**Commercial collection service coverage (%): 96**
Assumptions	Frequencies were calculated for each location based on the number of survey responses. For each location, responses to the question "Where do you dispose your waste?" (under the waste collection service section) were analysed. Responses indicating disposal in bins or bags were counted, as these were used as a proxy indicator for access to a waste collection service. The proportion of businesses with access to a waste collection service was then calculated by dividing the number of such responses by the total number of businesses interviewed in each location.
Data gaps	• No specific commercial collection service coverage was provided in the audit report. • No information on the total number of businesses participating nationally.
Key considerations	• Completion of business surveys suggested in the DCMR framework, would provide an indication of how regular, accessible, and affordable collection services are for businesses..

Supplementary KPI 10: Weight of disaster waste disposed

Results	**Weight of disaster waste disposed (tpa): No data** • Measured as a sum of the recorded weight of disaster waste disposed to landfill or received and stockpiled at waste facility following a disaster event. • No disaster waste data was recorded during the examined audits.
Assumptions	• Only captures disaster waste which ends up disposed of or stored at waste facilities, including landfills, disposal sites and recovery facilities. • Assumes that the waste facility register has been completed to capture disaster waste information separately of other waste loads received post-event (i.e., information on disaster waste categorised separately to other waste types/streams).
Data gaps	• The calculation of this performance indicator relies on estimations of the weight of disaster waste (tonnes) landfilled or received at a waste disposal facility following disaster events.
Key considerations	• Calculation of this performance indicator provides an estimate of the amount of disaster waste being effectively managed and the total amount of disaster waste generated in a year. • Calculating this KPI can be undertaken by regularly updating the waste facility register. Tracking the vehicle capacity and percentage fullness of a load of any 'disaster waste' carrying vehicles entering the facility will help reconcile waste amounts disposed if these wastes are not managed separately.

4 Conclusion

This report expands on previous assessments by offering more granular data on waste composition, based on data given from facilities, and used different assumptions to update further KPIs with the data available. It also includes updated tonnage estimates, identifies local recycling efforts. Compared to earlier reports, it provides clearer baselines for future monitoring. Although, the data is still using a variety of assumptions throughout. While there has been an increase in data available, there is still not as much data available that is needed to get a complete baseline.

Remaining data gaps include:

- No data on informal waste streams (e.g. backyard burning, burial, informal reuse).
- Inconsistent data collection methods between states limit comparability.
- Limited tracking of waste and lack of data on waste managed through community initiatives.
- Minimal information on private sector roles in waste reduction or recycling.

A strong data collection and reporting framework that is reported on consistently would help Palau for future waste data management.

5 Appendix

5.1 Collection Methods

The KPIs are calculated from a range of data sources. They are listed in the below table with information about what KPIs they inform, how they work, and how often they need to be collated.

Collection Method	What the Collection Method Informs	About the Collection Method	Frequency of Reporting
Waste Facility Register	**KPI 1** Count and capacity of modern waste facilities **KPI 2** Count and capacity of unregulated waste facilities **KPI 3** National recovery rate **SKPI 1** Cost of disposal to landfill **SKPI 2** Weight of waste disposed **SKPI 3** Weight of waste recovered **SKPI 4** Volume and type of stockpiled hazardous waste **SKPI 10** Weight of disaster waste disposed.	The Waste Facility Register is a written survey that can be completed on Word, Excel, Kobo Toolbox, or something similar. It should be completed by or on behalf of waste facility operators.	Annual submission of monthly report (all KPIs and SKPIs). As and when disaster events occur (SKPI 10).
Household Community Survey	**KPI 4** Per capita waste generation rate **KPI 6** Household waste capture rate **KPI 7** Household collection coverage **SKPI 5** Marine plastic pollution potential **SKPI 6** Awareness and support of waste management services.	The Household Community Survey is a written survey that can be completed on Word, Excel, Kobo Toolbox, or something similar. It should be completed by or on behalf of households in Palau. Audit data and information was obtained via interviews and waste collections from 207 households of which 177 participated in interviews, and 39 businesses	Every five years.
Household Compositional Waste Audit	**KPI 4** Per capita waste generation rate **KPI 5** Municipal solid waste (MSW) composition **KPI 6** Household waste capture rate **SKPI 5** Marine plastic pollution potential.	The Household Compositional Waste Audit is a sort and weigh audit undertaken according to the Waste Audit Methodology: A Common Approach.[1] Audit data and information was obtained via interviews and waste collections from 207 households of which 177 participated in interviews, and 39 businesses	Every five years.
Commercial Community Survey	**SKPI 6** Awareness and support of waste management services **SKPI 8** Commercial collection service	The Commercial Community Survey is a written survey that can be completed on Word, Excel, Kobo	Every five years.

[1] https://www.sprep.org/sites/default/files/documents/publications/waste-audit-methodology-common-approach.pdf

Collection Method	What the Collection Method Informs	About the Collection Method	Frequency of Reporting
	coverage **SKPI 9** Commercial collection service coverage.	Toolbox, or something similar. It should be completed by or on behalf of households in Palau. Audit data and information was obtained via interviews and waste collections from 207 households of which 177 participated in interviews, and 39 businesses	
Commercial Compositional Audit	**KPI 4** Per capita waste generation rate **KPI 5** Municipal solid waste (MSW) composition **SKPI 5** Marine plastic pollution potential.	The Commercial Compositional Waste Audit is a sort and weigh audit undertaken according to the Waste Audit Methodology: A Common Approach. Audit data and information was obtained via interviews and waste collections from 207 households of which 177 participated in interviews, and 39 businesses	Every five years.
Landfill Activity Audit	Landfill Activity Audits can help to validate incomplete Waste Facility Register surveys.		Every five years if Waste Facility Register is incomplete.
Hazardous Stockpile Audit	Hazardous Stockpile Audits can help to validate Waste Facility Register surveys that have incomplete data on stockpiled hazardous waste. The audits are typically visual and estimate volumes of the following hazardous waste categories: • Asbestos • E-waste • Healthcare and pharmaceutical waste • Used oil • Used tyres • Obsolete chemicals.		Every five years if Waste Facility Register is incomplete.
Policy Survey	**KPI 8** Fulfilment of MEA reporting requirements **SKPI 7** Proportion of strategic waste management initiatives implemented.	The Policy Survey is a written survey that can be completed on Word, Excel, Kobo Toolbox, or something similar. It quantifies the number of planned national and regional strategic initiatives over time.	Biennial.
Disaster waste	**SKPI 10** Weight of disaster waste disposed	Data on waste generated from disaster events is captured via the Waste Facility Register.	Annual/after disaster events.
Census data	**KPI 4** Per capita waste generation rate **SKPI 5** Marine plastic pollution potential.	Population data to inform the per capita waste generation rate and marine plastic pollution potential.	N/A
Customs Import and Export Data	Can be used to inform KPIs on waste generation, recovery rate, and capture rates.		N/A
Commercial Data	Number of total businesses and type to allow data to be used for national extrapolation.		N/A

5.2 KPI Calculations

5.2.1 Calculations for Core KPIs

KPI	Data Source/s	Formula and Notes	Definitions
1. Count / capacity of modern waste facilities	**Waste Facility Register**	**Count of modern facilities** The number of modern waste facilities, including incinerators. **Capacity of modern facilities** The theoretical maximum facility capacity based on the facility license in tonnes per annum for each modern waste facility, including incinerators.	**Modern** – A 'modern' facility employs 'sound waste management practices' (as defined by the UNEP) and results in minimal adverse impacts on the environment. A 'modern' facility must be licensed, staffed, and have access to equipment and machinery such as a bulldozer. A landfill or dumpsite must employ a leachate management system and a daily cover routine. A waste recovery facility should have fire prevention and control measures in place, and appropriate stormwater runoff controls. Facilities must not be exceeding their maximum storage capacity. **Waste facilities** – 'Waste facilities' involved in the handling, disposal, or recovery of waste streams above a minimum processing threshold determined on Palau basis (i.e., tonnes of waste received per year). Can include landfills or dumpsites (that primarily rely on burying waste in a controlled manner), recycling / recovery facilities for dry recyclables (and e-waste), organics recovery facilities, and waste-to-energy facilities.
2. Count / capacity of unregulated waste facilities	**Waste Facility Register**	**Count of unregulated facilities** The number of unregulated waste facilities. **Capacity of unregulated facilities** The theoretical maximum facility capacity based on the facility license in tonnes per annum for each unregulated waste facility.	**Unregulated** – typically unlicensed waste facilities which do not follow international frameworks, rules, and guidelines to protect the health of the environment and community. **Waste facilities** – refer to **KPI 1** definitions above.
3. National recovery rate (%)	**Waste Facility Register**	**National recovery rate** Calculated using the below formula: $\frac{\textit{Tonnes per annum of waste diverted from landfill}}{\textit{Tonnes per annum of waste received by all waste facilities}}$ This excludes informal and small-scale recovery activities that take place outside of waste facilities. However they can be calculated separately using the following formula where waste generated is the sum of what is recovered and disposed of:	**Recovery** – any activity that diverts waste material from landfill, including: • Dry recycling – the separation and reprocessing of dry recyclables including paper, cardboard, metal, and certain plastics. • Organics recovery – the mulching or composting of mixed organics to produce new products. • Energy recovery – waste processing that allows for the capture and reuse of energy.

KPI	Data Source/s	Formula and Notes	Definitions
		$\frac{Tonnes\ per\ annum\ of\ target\ waste\ stream\ recovered}{Tonnes\ per\ annum\ of\ target\ waste\ stream\ generated}$ • Where facilities do not have weighbridges conversion factors can be applied to convert volume (m^3) to tonnage (t).	
4. Per capita waste generation rate (kg/capita/year)	**Household waste audit** **Household Community Survey** **Census data** (population distribution, socio-economic conditions)	**Per capita waste generation rate** Calculated using the below formula: $\frac{Tonnes\ per\ annum\ of\ waste\ generated}{National\ population}$ This KPI considers household waste only. This calculation needs to consider the locations where compositional waste audits and surveys were undertaken to apply the audit results appropriately over the PICT. Waste generation varies between settlement types (urban/rural, main island/outer islands, etc.) and as these settlements are distributed uniquely in each PICT it needs to be considered in the calculation. This will be addressed in Section 3.0 Analysis of KPI Results to provide more detail about how the calculation was addressed for each PICT.	**Per capita** – units measured in a per capita (i.e., per person) basis to allow for extrapolation over a national population. **Waste generation rate** – waste generation measured at the point of origin and includes all disposal pathways (formal collection, dumping, burning, burying or other means).
5. Municipal Solid Waste (MSW) composition (%)	**Household waste audit** **Household Community Survey**	**MSW composition** The breakdown of the following waste materials by percentage: • Batteries • E-waste • Fishing • Glass • Hazardous • Hygiene • Metals • Organics • Other • Paper and cardboard • Plastics • Single-use This calculation needs to consider the locations where compositional waste audits were undertaken to apply the audit results appropriately over the	**Municipal Solid Waste** (MSW) – waste originating from the public (typically managed by local government entities) and excludes commercial waste.

KPI	Data Source/s	Formula and Notes	Definitions
		PICT. Waste generation varies between settlement types (urban/rural, main island/outer islands, etc.) and as these settlements are distributed uniquely in each PICT it needs to be considered in the calculation. This will be addressed in Section 3.0 Analysis of KPI Results to provide more detail about how the calculation was addressed for each PICT.	
6. Household waste capture rate (%)	**Household waste audit** **Household Community Survey** **Census data**	**Household waste capture rate** Calculated using the below formula: $\frac{\textit{Tonnes per annum of waste captured responsibly}}{\textit{Tonnes per annum of waste generated}}$ This calculation needs to consider the locations where compositional waste audits and surveys were undertaken to apply the audit results appropriately over the PICT. Waste generation and access to formal waste management services vary between settlement types (urban/rural, main island/outer islands, etc.) and as these settlements are distributed uniquely in each PICT it needs to be considered in the calculation. This will be addressed in Section 3.0 Analysis of KPI Results to provide more detail about how the calculation was addressed for each PICT.	**Capture rate** – the proportion of total waste generated that is successfully captured and disposed of or recovered in an environmentally responsible manner. Waste capture can include: • Waste collected by a household collection service. • Waste that is self-hauled to a licensed waste disposal facility. • Materials that are source separated and diverted to a recovery facility.
7. Household collection service coverage (%)	**Household Community Survey** **Census data** **Waste department records** (for validation)	**Household collection service coverage** Calculated using the below formula: $\frac{\textit{Number of people surveyed with access to a service}}{\textit{Total number of people surveyed}}$ This calculation needs to consider the locations where compositional surveys were undertaken to apply the results appropriately over the PICT. Access to waste services varies between settlement types (urban/rural, main island/outer islands, etc.) and as these settlements are distributed uniquely in each PICT it needs to be considered in the calculation. This will be addressed in Section 3.0 Analysis of KPI Results to provide more detail about how the calculation was addressed for each	• **Collection service** – a waste collection, transportation, and disposal service for household waste. Collection services can be either a house-to-house kerbside collection or community drop-off point. It is a requirement that the collection service be: • Regular – services are provided consistently in a way the does not lead to negative environmental impacts or disrupted engagement. • Accessible – drop-off points should be close to households included in the service. • Affordable – if the service is user-pay, then it should be priced in a manner that is affordable to the target

KPI	Data Source/s	Formula and Notes	Definitions
		PICT.	population. **Coverage** – the proportion of the total households that have access to a regular waste collection service.
8. Fulfilment of MEA reporting requirements (%)	**Policy Survey**	**Fulfilment of MEA reporting requirements** Calculated using the below formula: $\frac{Number\ of\ satisfactorily\ completed\ reports}{Total\ number\ of\ reports\ required}$	**Fulfilment** – to satisfy the condition of a reporting requirement to be fulfilled, it must: • Delivered on time (whether by a specific deadline or at a regular reporting interval) • Presented in the required format and units of measurement. • Utilise the correct information portal or platform for reporting. • Be based on accurate data collection methods. **Multilateral environmental agreement** (MEA) – agreements between countries, usually taking the form of international conventions that strive to protect the environment through the implementation of actions to meet specific environmental goals. Some MEAs have obligations which are legally binding. **Reporting requirements** – MEAs often require member nations to regularly report implementation plans, progress reports, and other information to the authoritative body of the MEA.

5.2.2 Calculations for Supplementary KPIs

KPI	Data Source/s	Formula	Relevant Definitions and Notes
1. Cost of disposal to landfill ($/tonne/annum)	**Waste Facility Register**	**Cost of disposal to landfill** Calculated in two steps, first using the below formula for each separate landfill: $$\frac{\textit{Annual facility operating cost}}{\textit{Tonnes per annum of waste disposed to landfill}}$$ Secondly, calculating the national weighted average according to their proportional contribution to the total weight of waste disposed nationally. This will be addressed in Section 3.0 Analysis of KPI Results to provide more detail about how the calculation was addressed for each PICT.	**Cost of disposal** – a measure of a facility operating cost incurred for the disposal of every tonne of material that is sent to landfill. This does not measure the 'gate fee' charged by landfill facilities, which may include additional profit margins charged to customers. **Landfill** – a waste disposal facility that primarily relies on burying of waste (includes both licensed and unlicensed facilities above the minimum processing threshold).
2. Weight of waste disposed (tonnes per annum)	**Waste Facility Register** **Conversion factors**	**Weight of waste disposed** The total weight in tonnes of waste that is disposed in all landfills across the PICT. Where facilities do not have a weighbridge conversion factors can be used. Where the Waste Facility Register is incomplete landfill audit activities can be used for validation.	**Disposed** - waste that is appropriately collected and landfilled, as opposed to waste which gets dumped, burned, buried, littered, or otherwise.
3. Weight of waste recovered (tonnes per annum)	**Waste Facility Register**	**Weight of waste recovered** The total weight in tonnes of waste that is disposed in all recovery facilities across the PICT. Where facilities do not have a weighbridge conversion factors can be used. Excludes informal waste recovery activities that take place outside of waste facilities, such as small-scale organics recovery or specialty recycling.	**Recovered** - waste that is appropriately collected and diverted from landfill through: • Dry recycling – the separation and reprocessing of dry recyclables including paper, cardboard, metal, and certain plastics. • Organics recovery – the mulching or composting of mixed organics to produce new products. • Energy recovery – waste

KPI	Data Source/s	Formula	Relevant Definitions and Notes
			processing that allows for the capture and reuse of energy.
4. Volume and type of stockpiled hazardous waste (m^3)	**Waste Facility Register** **Alternative: Drones** to identify unreported stockpiles	**Volume and type of stockpiled hazardous waste** The volume in cubic metres (m^3) for each hazardous waste stream: • Asbestos • E-waste • Healthcare and pharmaceutical waste • Used oil • Used tyres • Obsolete chemicals.	**Stockpile** – an accumulation of materials over a specified quantity and time, held in reserve or storage, that typically occurs during: • Temporary storage until enough material is accumulated to treat or dispose of it efficiently. • Temporary storage while commodity prices are low, until the value of the recovered materials rises. • Inappropriate and permanent waste disposal. **Type of Hazardous waste** – waste or waste products that present a risk to environmental or human health, either now or in the future.
5. Marine plastic pollution potential (tonnes per annum)	**Household waste audit** **Household Community Survey** **Census data**	**Marine plastic pollution potential** Calculated in two steps, first quantify the weight of waste in tonnes per annum that is mismanaged using **KPI 4 Rate of household waste generation** and **KPI 6 Household waste capture rate:** Mismanaged waste = $\boldsymbol{KPI\ 4} \times population \times (1 - \boldsymbol{KPI\ 6})$ Secondly, estimating the amount of plastic that has the potential to become marine pollution using the composition of plastic as a percentage (%) identified in **KPI 5 MSW Composition:** Marine plastic pollution potential = $Mismanaged\ waste \times plastic\ composition\ (\%)$	**Marine plastic pollution** – Waste plastics which are not managed in an environmentally sound manner, hence have a risk of polluting oceans and estuarine waterways. The KPI scope only considers macroscopic plastic waste (i.e., plastic that can be identified visually through compositional audits) originating from household sources. **Potential** – a theoretical

KPI	Data Source/s	Formula	Relevant Definitions and Notes
			estimate of the potential weight of plastic that ends up in the ocean annually.
6. Awareness and support of waste management services (%)	**Household Community Survey**	**Awareness and support of waste management services** Calculated using the below formula: $$\frac{Number\ of\ positive\ responses}{Number\ of\ available\ services\ \times Number\ of\ participants}$$	**Awareness** – based on responses from the community awareness survey, the extent to which knowledge of waste management services is common in a community or on the Palau level. **Waste management services** – Services available to the public for waste management, including: • Access to waste collection services. • Access to waste drop-off points. • Availability of local recycling services. • Availability of local composting services.
7. Proportion of strategic waste management initiatives implemented (%)	**Policy Survey**	**Proportion of strategic waste management initiatives implemented** Calculated using the below formula: $$\frac{Number\ of\ initiatives\ implemented\ nationally}{Number\ of\ planned\ initiatives\ national\ +\ regional}$$	**Strategic waste management initiatives** – Actions (usually in the form of projects, policy interventions or new regulation) that are established by national and regional waste strategies. **Implemented** – successfully executed actions that are delivered during the reporting period.
8. Commercial waste capture rate (%)	**Commercial waste audit**	**Commercial waste capture rate** Calculated using the below formula:	**Capture rate** – the proportion of total commercial waste generated that is

KPI	Data Source/s	Formula	Relevant Definitions and Notes
	Commercial Community Survey **National commercial information** (i.e. number, types, and geographic distribution of businesses across the PICT)	$\frac{Tonnes\ per\ annum\ of\ waste\ captured\ responsibly}{Tonnes\ per\ annum\ of\ waste\ generated}$ This calculation needs to consider the locations where compositional waste audits and surveys were undertaken to apply the audit results appropriately over the PICT. Waste generation and access to formal waste management services vary between settlement types (urban/rural, main island/outer islands, etc.) and as these settlements are distributed uniquely in each PICT it needs to be considered in the calculation. This will be addressed in Section 3.0 Analysis of KPI Results to provide more detail about how the calculation was addressed for each PICT.	successfully captured and disposed of or recovered in an environmentally responsible manner. Waste capture can include: - Waste collected by a commercial collection service or that is self-hauled to a licensed waste disposal facility. - Materials that are source separated and diverted to a recovery facility
9. Commercial collection service coverage (%)	**Commercial Community Survey** **National commercial information** (i.e. number, types, and geographic distribution of businesses across the PICT)	**Commercial collection service coverage** Calculated using the below formula: $\frac{Number\ of\ people\ surveyed\ with\ access\ to\ a\ service}{Total\ number\ of\ people\ surveyed}$ This calculation needs to consider the locations where compositional surveys were undertaken to apply the results appropriately over the PICT. Access to waste services varies between settlement types (urban/rural, main island/outer islands, etc.) and as these settlements are distributed uniquely in each PICT it needs to be considered in the calculation. This will be addressed in Section 3.0 Analysis of KPI Results to provide more detail about how the calculation was addressed for each PICT.	**Collection service** – a waste collection, transportation, and disposal service for commercial waste. Collection services can be either a provided as a kerbside collection or as a designated drop-off point. It is a requirement that the collection service be: • Regular – services are provided consistently in a way the does not lead to negative environmental impacts or disrupted engagement. • Accessible – drop-off points should be close to businesses included in the service. – • Affordable – if the service is user-pay, then it should be priced in a manner that

KPI	Data Source/s	Formula	Relevant Definitions and Notes
			is affordable to the target businesses. **Coverage** – the proportion of the total businesses that have access to a regular waste collection service.
10. Total weight of disaster waste disposed (tpa)	**Waste Facility Register** **Alternative : Datasets** collected not yet reported to the Waste Facility Register **Alternative : Drones** to identify unreported stockpiles	**Total weight of disaster waste disposed** Calculated as the sum of weight of disaster waste (tonnes) landfilled or received at a waste disposal facility in a Palau following disaster events.	**Weight** – measured as a weight-based summation of all waste facilities. **Disaster Waste** – Large quantities of waste caused by disasters. **Disposed** - waste that is appropriately collected and landfilled, as opposed to waste which gets dumped, burned, buried, littered, or otherwise.

6 References

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