



NATIONAL SOLID AND HAZARDOUS WASTE MANAGEMENT STRATEGY OF THE FEDERATED STATES OF MICRONESIA 2024–2034



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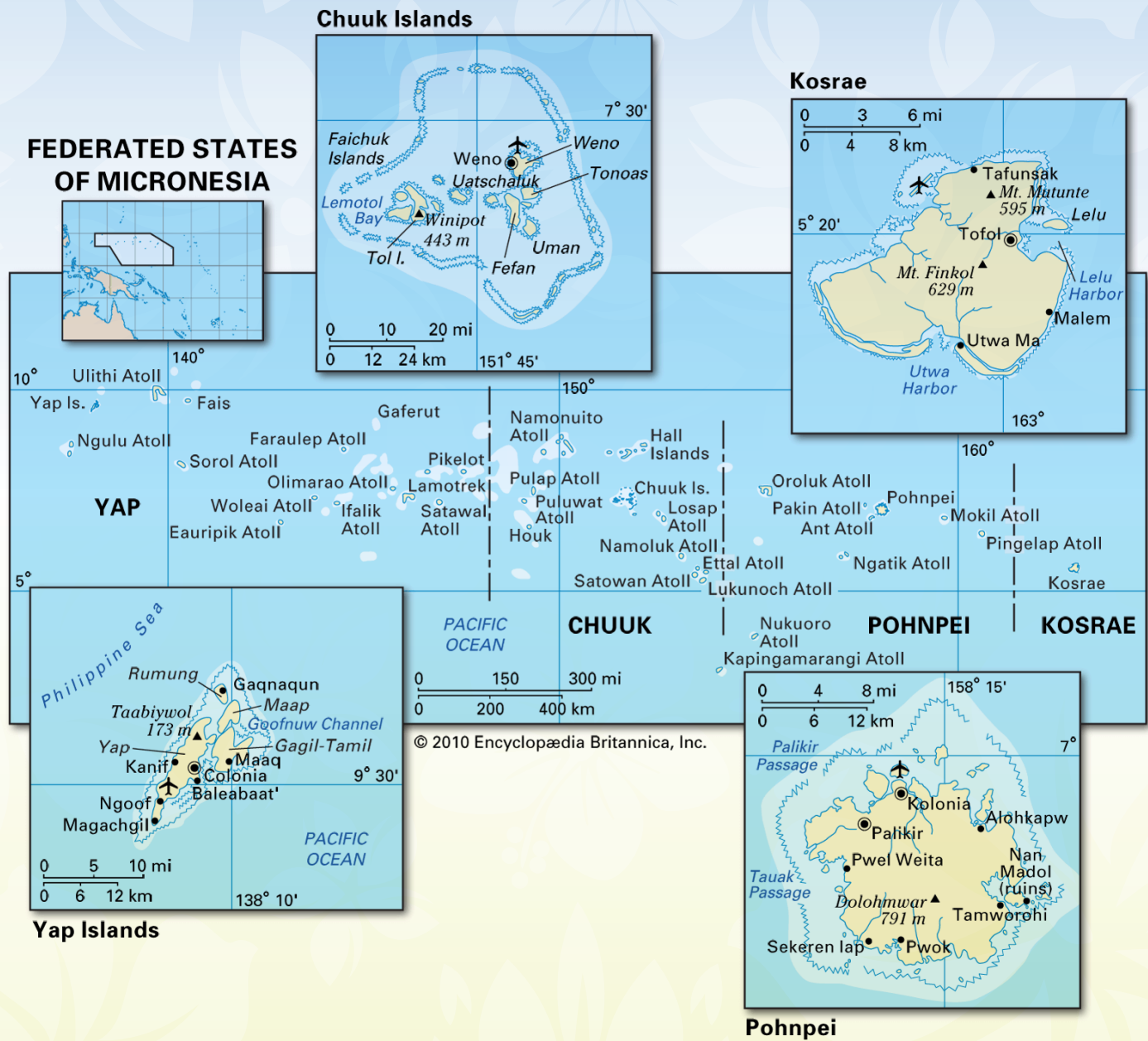
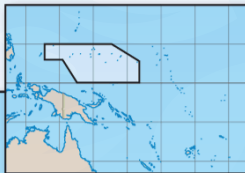
Towards a clean and healthy FSM





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FEDERATED STATES OF MICRONESIA

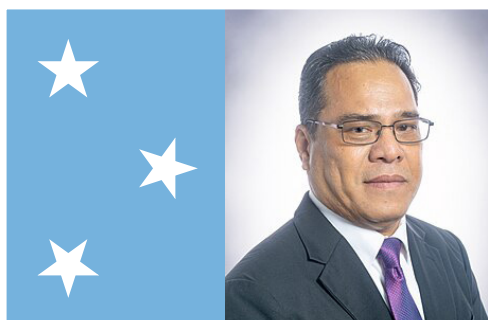


Foreword



The President
Palikjir, Pohnpei
Federated States of Micronesia

FOREWORD



Our National Environment Policy, as articulated in the Environment Protection Act, says it best: *"We, as the current generation, must fulfill our responsibilities as trustee of the environment for succeeding generations."*

This Strategy has been developed with the invaluable input of key stakeholders across our Nation. It offers a clear and collective path for us to fulfill our responsibility in addressing a persistent and pressing

threat to our environment—one that is within our control and, indeed, a consequence of our own actions: waste in all its forms.

This anthropogenic threat demands our urgent attention at all levels. Each of us, as individuals, must play our part. Equally important is our collective action—at the community, state, national, regional, and even global levels—to make a real difference. I pledge the commitment of the National Government to do its part, particularly in global and regional forums, where we will continue to lead in calling for all nations to fulfill their responsibilities—especially those producing waste materials that persist in and harm our environment. Such materials impact not only our islands and the people of this generation but also the generations yet to come.

I also call on our State and Municipal Governments to continue their commendable efforts in leading the work to protect, preserve, and clean up our islands.

This Strategy is both clear and necessary. It provides us with the opportunity to act as responsible stewards of our environment. By committing to this effort, we demonstrate the courage and determination to do what is right and necessary—to pass on to future generations a world that is better than the one we inherited.

Let us all commit to doing our part.

Endorsed this 17th day of December, 2024.


Wesley W. Simira
President
Federated States of Micronesia

Abbreviations

CDL	Container Deposit Legislation
CSL	Chuuk State Law
COFA	The Compact of Free Association
DECEM	Department of Environment, Climate Change and Emergency Management
DOE	Department of Education
DOFA	Department of Finance and Administration
DHESA	Department of Health and Social Affairs
DT&I	Department of Transportation, Communications, and Infrastructure
DPW&T	Department of Public Works & Transportation
E-CIG	Electronic Cigarette
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
EU	European Union
E-WASTE	Electronic and electrical appliances wastes
FSM	Federated States of Micronesia
J-AWARE	JICA's Activity on Waste Audit Research
JEMCO	Joint Economic Management Committee
JICA	Japan International Cooperative Agency
JPRISM	Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries
KIRMA	Kosrae Island Resource Management Authority
KSL	Kosrae State Law
NWMS	National Waste Management Strategy
SWMS	Solid Waste Management Strategy
OEEM	Office of Environment and Emergency Management
PICs	Pacific Island Countries
PSL	Pohnpei State Law
POPs	Persistent Organic Pollutants
PSL	Pohnpei State Legislature
SDG	Sustainable Development Goals
SIDS	Small Island Developing States
SLM	Sustainable Land Management
SPREP	Secretariat of the Pacific Regional Environment Programme
UNDP	United Nations Development Programme
WHO	World Health Organization
YSL	Yap State Law

Executive Summary

The vision of the National Solid and Hazardous Waste Management Strategy of the Federated States of Micronesia 2024–2034 (National Waste Management Strategy) is that:

The Federated States of Micronesia consider all waste as a valuable resource to be managed sustainably.

The National Waste Management Strategy is a ten-year commitment by the National Government that aims to meet the following objectives for the betterment of the environment and the people of the FSM:

1. Eliminate waste and pollution through prioritizing waste avoidance and reduction.
2. Reuse and recycle materials and retain them in the system at their highest value.
3. Regenerate nature for the betterment of the natural environment.
4. Achieve positive social, economic and cultural benefits for the people of the FSM.
5. Place accountability and responsibility where it belongs.

The National Waste Management Strategy acknowledges and seeks to enable the FSM States to continue delivery of their individual solid waste management strategies and recognizes that effective management of solid and hazardous wastes is everyone's responsibility. At the heart of this lay collaboration and teamwork – key values that will drive a successful shift towards sustainable waste and resource management.

Alignment is also a key value for the National Waste Management Strategy and, as such, care has been taken to align it with the strategic management framework set out in the SPREP Cleaner Pacific 2025 Strategy and the SPREP Regional Waste Data Collection, Monitoring and Reporting Framework, which has been embedded within the Action Plan and associated key performance indicators. Further, the National Waste Management Strategy sets out clearly the roles and responsibilities of both the National and State Governments.

The key drivers for change that the National Waste Management Strategy addresses are:

- Support and facilitate States to fulfil obligations to international agreements.
- The need to establish sustainable funding models for waste management.
- Gaps in the understanding of waste and waste management.
- Ongoing solid and hazardous waste issues in FSM.

The FSM is presented with several waste issues including:

- Sustainable financing and the reliance on external sources to fund capital works and operational works.
- Disposal infrastructure and the challenges arising based on existing waste management infrastructure in the States.
- Processing infrastructure and stockpiling including difficulties in operating and maintaining materials processing equipment.

- The cost of export waste for processing, with many materials requiring funding to cover shipping and/or processing costs.
- Diverse legal frameworks spanning the four States meaning that each has in place structures that work best for them and their people but that may not be consistent with other States.
- Inconsistent data collection, monitoring and reporting across the FSM.
- Low quality imports that are typically imported from more developed countries and are generally cheap to purchase and have a limited lifespan, leading to their becoming waste quickly.

As well as issues, the FSM also has several opportunities and strengths to leverage including:

- Active container deposit legislation in three of the four States.
- Keenness for cross-State collaboration.
- Capacity for Indigenous knowledge sharing.
- Strong interest in nation-wide education and engagement.

To bring all this together, the National Waste Management Strategy has defined four Focus Areas as follows:

1. National coordination which describes the ability of the National Government to set a cohesive and unified vision for waste management across the FSM, with policies, standards, and regulations to support its realization.
2. Sustainable finance through inter-organizational partnerships which centers on the FSM National Government forging strategic relationships to secure finance to establish self-sustaining waste management systems.
3. Capacity building and collaboration which addresses the need to strengthen the abilities and competencies of individuals, organizations, and communities involved in waste management across all the FSM States.
4. Ongoing solid and hazardous waste matters which include difficulties related to the generation, handling, disposal, and long-term impacts of solid and hazardous waste including challenges with regulatory compliance, enforcement of waste policies, and the promotion of sustainable waste practices across the FSM.

To ensure the National Waste Management Strategy remains relevant and resilient to change, the FSM National Government is committed to undertake a formal review process following completion of the first five-year action plan.

The purpose of this review will be to evaluate progress on each of the focus areas and actions against their respective performance metrics. It will also consider changes in the waste sector, advancements in industry practices, environmental concerns, and stakeholder feedback.

Together, this information will be used to revise the National Waste Management Strategy, if needed, and develop the next five-year action plan.

1. National Waste Management Strategy Vision, Objectives and Mission

1.1 Vision

The Federated States of Micronesia consider all waste as a valuable resource to be managed sustainably.

The vision of the FSM National Waste Management Strategy 2024–2034 declares a commitment to waste management for the betterment of the environment and people of the FSM. It is a ten-year commitment by the National Government on behalf of all the people of the FSM.

1.2 Objectives

To deliver on this vision, the objectives of the National Waste Management Strategy are to:

1. Eliminate waste and pollution through prioritizing waste avoidance and reduction.
2. Reuse and recycle materials and retain them in the system at their highest value.
3. Regenerate nature for the betterment of the natural environment.
4. Achieve positive social, economic and cultural benefits for the people of the FSM.
5. Place accountability and responsibility where it belongs.

These objectives align with the fourteen principles of the Secretariat of the Pacific Regional Environment Programme's (SPREP) 'Cleaner Pacific 2025: Pacific Regional Waste and Pollution Management Strategy 2016–2025'¹.

1.3 Mission

The mission of the FSM National Waste Management Strategy is to commit to reducing solid waste generation and managing residual waste materials in a way which maximizes opportunities for resource recovery, while taking responsibility for protecting their public health and environment through partnership with all its citizens.

¹ Cleaner Pacific 2025: Pacific Regional Waste and Pollution Management Strategy 2016–2025: Implementation Plan 2021–2025. (sprep.org)

2. About the National Waste Management Strategy

2.1 Background

From 2014, the FSM States began developing individual solid waste management strategies (SWMS). These strategies were developed with the assistance of the Japanese International Cooperation Agency (JICA)² and SPREP. Each SWMS was developed in consultation with the FSM National Government's Department of Environment, Climate Change and Emergency Management (DECCEM), government officials from relevant State agencies, non-governmental organizations and community members.

The SWMS, listed below, provide overarching direction and a four-year action plan:

- [Chuuk State Solid Waste Management National Waste Strategy 2019-2028.](#)
- [Kosrae State Solid Waste Management National Waste Strategy 2018-2027.](#)
- [Pohnpei State Solid Waste Management National Waste Strategy 2020-2028.](#)
- [Yap State Solid Waste Management National Waste Strategy 2018-2027.](#)

The State SWMS and this document draw on regional vision and actions set out in the SPREP Cleaner Pacific 2025 National Waste Management Strategy. This link to Pacific region activity is an important aspect of effective solid and hazardous waste management activity in the FSM. Given that the four-year action plans from the SWMS are due for new iterations, it is an opportune time for reflection and evaluation, and for the FSM National Government to renew the provision of high-level guidance and direction for the management of solid waste, this time with the inclusion of hazardous waste. A 'zero-draft' strategy was prepared by J-PRISM II, the State Environmental Protection Agencies (Pohnpei, Chuuk and Yap EPAs) (EPA), and Kosrae Island Resource Management Authority (KIRMA) considering this.

In 2023, the FSM National Government sought and received funding via SPREP to develop a National Solid and Hazardous Waste Management Policy (National Waste Management Policy) and a National Solid and Hazardous Waste Management (National Waste Management Strategy, this document). The development of the Waste Management Policy and National Waste Strategy Management included a six-month consultation period that included conversations with State EPAs, KIRMA and other key government departments and stakeholders.

The National Waste Management Strategy incorporates and acknowledges this input and feedback as well as the extensive work that was undertaken by each of the States when developing their SWMS. It aims to promote and support this work by defining mutual priority areas and by facilitating action and collaboration.

A timeline of key events leading to the development of the National Waste Management Strategy (and National Waste Management Policy) are displayed in Figure 3.1.

² Through the Japanese Technical Cooperation Project II for the Promotion of Regional Initiative on Solid Waste Management National Waste Strategy in the Pacific Countries (J-PRISM II)

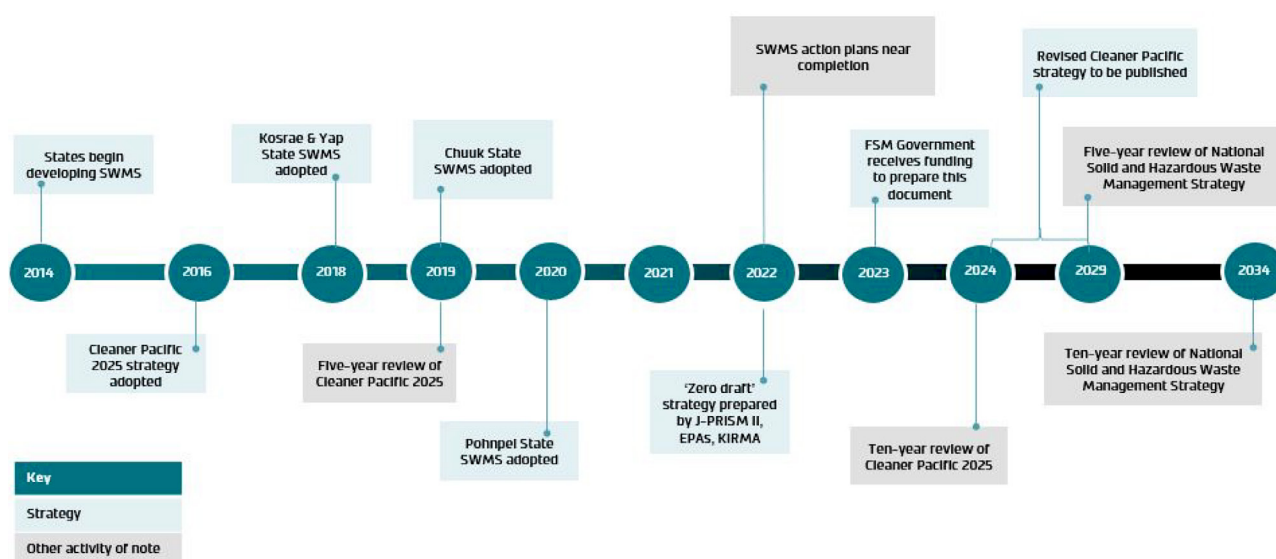


FIGURE 3.1. Timeline of key events in the development of the National Waste Policy and National Waste Strategy for the FSM

2.2 National Waste Management Strategy Scope

The National Waste Management Strategy applies to all wastes that fall within the definition of ‘solid waste’ and ‘hazardous waste’ in the National Waste Management Policy.

For solid waste, this is: ‘Any type of non-hazardous garbage, trash, refuse or discarded material requiring collection and transport to a processing or disposal site.’

In regards to Hazardous Waste, as defined in Article 1 and associated Annexes of the Basel Convention, it includes, but is not limited to, clinical wastes, pharmaceutical wastes, waste oils, chemical wastes, electronic wastes and persistent organic pollutants.

2.3 Relevant Agreements and Policy

Waste management in the FSM is influenced by policy and stakeholders at international, national and state levels. The agencies and agreements that support solid waste management, and the overlap between these are displayed in Figure 3.2.

At the international level this includes agreements that the FSM is party to. Several funding and development agencies continue to support waste management activity in the FSM. A key focus of this National Waste Management Strategy is recognizing the role of these agencies and aligning the actions and aspirations of the FSM with them.

Within the FSM, waste management is carried out and overseen by the State EPAs, KIRMA, and DECEM. The guiding Policy of waste management is the Environmental Protection Act or Title 25 and each state’s Environmental Protection Act.

In essence, the State EPAs/KIRMA regulate waste management activities while the State Department of Transportation and Infrastructure/Public Works implement waste management activities such as landfill management, collection and disposal, and recycling. Overall, DECEM facilitates the states’ waste management efforts.

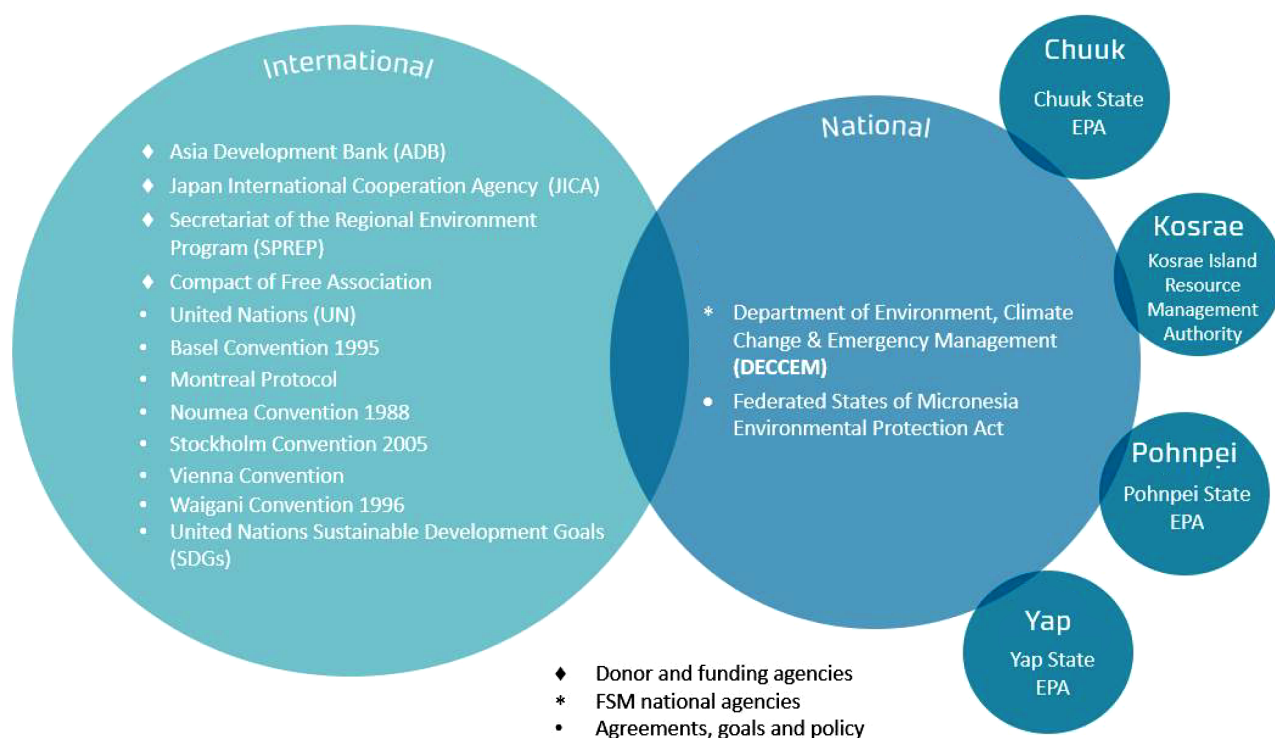


FIGURE 3.2 Arrangements influencing solid waste management in FSM

2.4 Drivers for change

As well as the influencing arrangements noted in Section 3.3, there are several key factors that drive the need for this National Waste Management Strategy. These are outlined below.

2.4.1 Support and facilitate States to fulfil obligations to international agreements

The FSM is a party to several agreements including the Basel Convention, Waigani Convention Montreal Protocol, Stockholm Convention, and the Noumea Convention. These agreements place targets and requirements on the FSM. For example, under the Basel Convention, the FSM must notify and obtain consent from importing countries before shipping hazardous wastes. Failure to meet the FSM's obligations under these agreements may result in:

- diplomatic pressure
- financial penalties
- reputational damage
- international arbitration

By complying with these agreements, the FSM is put in good political standing, and can protect the environment.

Focus Area: National coordination

2.4.2 The need to establish sustainable funding models for waste management

Waste management is supported by a variety of financial assistance packages in the FSM. Funding is sourced from a range of development partners, the COFA, container deposit schemes and in some cases charges for services. By providing a coordinated and resilient approach to funding waste management activities the FSM government can support the States to approach funding agencies and diversify their sources of funding.

Focus Area: Sustainable finance through inter-organisational partnerships.

2.4.3 Gaps in the understanding of waste and waste management

State EPAs and KIRMA have had limited guidance on best practice for solid and hazardous waste management, limiting their ability to effectively implement some of the actions in their SWMS. By providing clear direction for best practice waste management, the national government can empower the states to deliver on their SWMS.

Focus Area: Capacity building and collaboration

2.4.4 Ongoing solid and hazardous waste issues in FSM

A combination of limited education and enforcement and the lack of appropriate disposal facilities and infrastructure resilience has resulted in ongoing challenges with solid and hazardous waste management. Examples include the Marina dump site (Chuuk), stockpiling waste including hazardous waste, and notably, illegal dumping of end-of-life vehicles (Figure 3.3). While these issues exist in the individual States, they are experienced across FSM, and there has been limited success by the States dealing with these ongoing issues in isolation from each other.

Focus Area: Ongoing solid and hazardous waste matters



FIGURE 3.3. Illegal dumping of end-of-life vehicles in FSM.

2.5 Roles and Responsibilities

Effective management of solid and hazardous wastes is everyone’s responsibility. This starts with developing effective policies and legislation, promoting effective awareness campaigns on the 3Rs and engaging the general public in waste management activities, and addressing the key issues in landfill management, collection and disposal, and recycling. The roles and responsibilities for waste management for both the National and State Governments are defined in Table 3-1.

TABLE 3.1. Roles and responsibilities of the National and State Governments in relation to solid and hazardous waste management

NATIONAL GOVERNMENT			STATE GOVERNMENT	
Sector	Role	Responsibilities	Role	Responsibilities
Policy	Lead	Identify areas that require policy intervention, and subsequently design and develop appropriate policy responses. Consult with States regarding appropriate policy responses. Facilitate agreement to define roles and responsibilities.	Lead and implement	Identify state specific areas that require policy intervention, and design and develop appropriate policy responses. Implement National policy (where applicable), monitor policy execution and evaluate its impact.
Awareness and education	Lead	Develop overarching information and campaigns to educate citizens, raise awareness, and influence behaviour at a national scale.	Lead, support and implement	Develop state-specific information and campaigns and proactively educate communities and local businesses and citizens about waste-related issues and opportunities for a more informed and environmentally conscious society. Support the delivery of national campaigns at a state level.
International advocacy	Lead	Advocate on key issues on the international stage to drive global dialogue and action.	Support	Provide ‘on ground’ information to the National Government to inform their key messages for international advocacy.

NATIONAL GOVERNMENT			STATE GOVERNMENT	
Sector	Role	Responsibilities	Role	Responsibilities
Landfill management	Support	Developing best practice guidelines, thereby setting benchmarks for optimal performance. Monitoring adherence to regulations to ensure compliance. Support collaborative procurement opportunities and facilitate regional research into emerging technologies.	Lead	Supervising the construction, operation, and management of landfills. Maintain regulatory compliance by conducting frequent inspections and audits, ensuring landfill operations align with environmental standards and public health necessities.
Collection and disposal	Support	Developing best practice guidelines, thereby setting benchmarks for optimal performance. Monitoring adherence to regulations to ensure compliance.	Lead	Supervising the design, operation, and management of collection services. Maintain regulatory compliance by conducting frequent inspections and audits, ensuring compliance and alignment with environmental standards and public health necessities.
Recycling	Support	Formulating and implementing policies and programs that encourage waste reduction, reuse, and recycling. Consider investment in and support of the design, development and coordination of recycling facilities.	Lead	Design, operate and manage the segregation and transportation of recyclable materials. Form partnerships with local businesses and non-profit organizations to promote recycling initiatives. Oversee enforcement of local regulations to encourage recycling,
Enforcement	Support	Developing policies and legislation that empower the States to enforce proper waste management practices, e.g., a provision in the EP Act that empowers State EPAs and KIRMA to undertake prosecution in particular cases.	Lead	Monitor and enforce compliance with State Government legislation including issuing fines and penalties and prosecution where appropriate.

The National Government, State Governments and the community all play a critical role in adhering to and promoting the initiatives contained within this National Waste Management Strategy. Collaboration and teamwork lie at the heart of a successful shift towards sustainable waste and resource management.

3. The FSM Waste Profile

3.1 FSM National Waste Profile

The FSM is situated in the western Pacific Ocean and comprises over 600 diverse islands across the four States shown in Figure 4.1. Solid and hazardous waste management in FSM is influenced, administered, and represented by five key agencies (Figure 4.2). These are:

- Department of Environment, Climate Change and Emergency Management
- Yap State Environmental Protection Agency
- Chuuk State Environmental Protection Agency-Board.
- Pohnpei Environmental Protection Agency.
- Kosrae Island Resource Management Authority.



FIGURE 4.1. Map of Federated States of Micronesia, prepared by Tonkin + Taylor

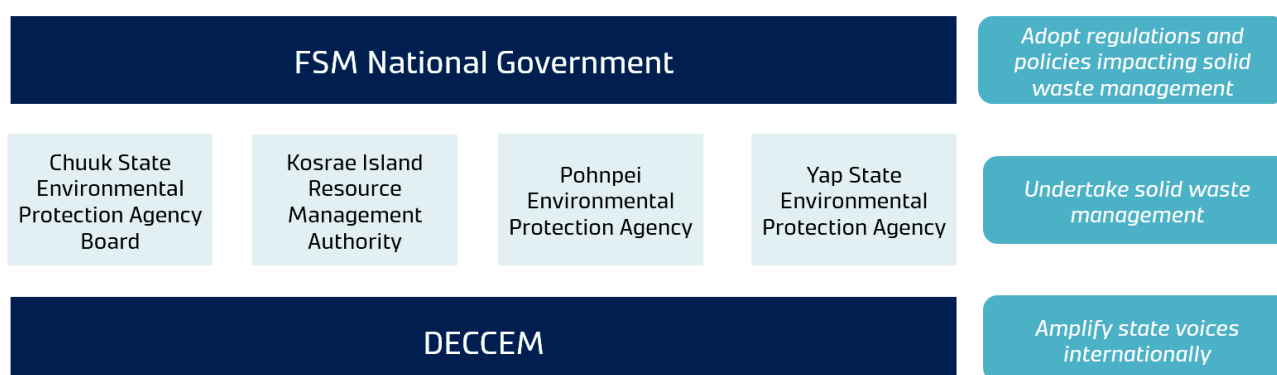


FIGURE 4.2. Agencies and responsibilities associated with FSM solid waste management

FSM is governed by its Constitution which guarantees fundamental human rights, and establishes a separation of governmental powers. At the national and state level, there are three branches of government – the Executive, Legislative, and Judicial branches.

3.2 Waste generation in the FSM

Due to limited population and waste generation data, it is difficult to quantify total waste generation in FSM. However, a series of waste audits undertaken in 2021 indicate the following:

1. A significant portion of waste is generated by households³.
2. Waste from households is collected by a mix of private collectors, and State operated collections. Collections tend to be available to more urban settlements, with more remote communities self-hauling materials to local dump sites or burning waste on property.
3. Potentially recyclable materials e.g. plastics, glass and metals make up most waste from households, followed by organic materials.
4. Across FSM the recycling rate is between 20-26%⁴. The recycling rate represents the portion of waste that is recycled (collected in CDL or recycled on-site e.g. kitchen scraps fed to animals) relative to the total amount of waste generated.

Acknowledging the limitations of existing baseline data, improved accurate data collection and monitoring will be a key focus of this document and future planning for waste management in the FSM.

The States also face challenges managing waste types including:

- End-of-life vehicles
- Sunken vessels
- Medical and chemical waste
- Poor quality imports e.g. e-waste and vehicles
- Disaster waste.

³ Based on waste audits undertaken in 2021. Chuuk 64%, Kosrae 70%, Pohnpei 65%, Yap 65%.

⁴ Based on available data from State SWMS

3.3 FSM State Waste Profile – Chuuk

Chuuk State is situated in the west of the FSM and consists of more than 40 municipalities, with Weno Island serving as the State's administrative and commercial centre.

A significant portion of Chuuk's waste is generated by households (63.5%) while businesses, shops, and public institutions contribute the remaining 36.5%.

Chuuk employs two distinct waste collection systems. The 'station' system utilizes large yellow bins at designated stations where waste collection occurs. The 'horn' system involves a traveling collection truck, which signals its approach via a horn, prompting residents to present their waste for collection. There are no waste collection fees in Chuuk.

Dumping of waste is a significant challenge for Chuuk with approximately 17.6% of all waste generated being disposed of improperly. This is particularly an issue for hazardous waste including end-of-life vehicles (Figure 4.3).

Chuuk Solid Waste Management Strategy (SWMS) 2019–2028 identifies three key strategic actions:

- Proper management of landfill sites.
- Introduction of a Container Deposit Legislation recycling system.
- Enhancement of human capacity.

Alongside the SWMS, the 2023 Chuuk State Chemical Profile identifies the following challenges to be addressed:

- Institutional capacity for managing Chuuk's chemicals, hazardous substances, and waste is yet to develop fully.
- There is a lack of policy guidelines surrounding chemical handling, storage, and disposal.
- Capacity to maintain management equipment e.g. incinerators for hazardous and medical waste.

Final disposal infrastructure is a priority for Chuuk moving forward. Since 2015, the Neouo landfill site has not accepted waste with the State using the Marina interim dumpsite from 2016 to the present. The Chuuk SWMS includes actions to remediate the Neouo landfill site and develop a new disposal facility at Nepukos Village.



FIGURE 4.3. Waste stockpile in Chuuk State

3.4 FSM State Waste Profile – Kosrae

Kosrae State is a singular volcanic island located in the east of the FSM. The island is divided into four municipalities – Lelu, Malem, Tafunsak and Utwe.

Households generate nearly 70% of the waste in Kosrae. This is collected through the collection services, where available, shown in Figure 4.4 or self-hauled to disposal sites. Across Kosrae, waste collection services are available to less than 40% of households, largely due to financial constraints and underdeveloped collection infrastructure.

Alongside disposal infrastructure, households in Kosrae employ recycling at source to manage their waste. As much as 37.1% of waste generated at households is composted or treated at source with 33.9% being recycled within the households themselves and an additional 3.2% is captured for recycling under the Container Deposit Legislation (CDL) program. However, waste management capacity remains insufficient to deal with the current volume of waste being produced, notably for hazardous materials including oil and electronic waste.

The CDL program in Kosrae was established with support from UNDP in 2007. The Micronesia Eco Corporation (MEC) used to oversee the CDL program, hosting weekly collection days, offering cash refunds for recyclable materials, and processing aluminium cans and glass bottles for recycling. Currently, the CDL program is handled by KIRMA.

Kosrae has one landfill, located in the Lelu Municipality. However, 9% of waste generated in Kosrae continues to be improperly disposed of.

The Kosrae State SWMS 2018–2027 identifies four key strategic actions:

- Improvement of waste collection system.
- Improvement of the CDL program.
- Proper management of the public landfill site.
- Proper treatment of waste oil.

Alongside the SWMS, the 2023 Kosrae State Chemical Profile identifies the following challenges to be addressed:

- Building on enforcing the Persistent Organic Pollutants Acts of 2009.
- Capacity for effective chemical management is limited and remains a significant concern for Kosrae.
- State government has no mandate to regulate imports of hazardous material in to their territory.



FIGURE 4.4 Waste placed out for collection in Kosrae

3.5 FSM State Waste Profile – Pohnpei

Pohnpei State is situated in the central region of the FSM. Pohnpei is home to the national capital, Palikir, and is composed of the large volcanic island of Pohnpei, 25 smaller islands, and 137 coral reefs. Pohnpei's climate is ideally suited for key industries such as agriculture and tourism.

Household waste makes up 65% of total waste generated in Pohnpei. Like other States, recycling on-site including home composting or reuse of materials is a standard practice for several households. Pohnpei has introduced CDL, with the scheme collecting less than 1% of total waste generated in the State.

Pohnpei has one public landfill site in Dekehtik, operated by Pohnpei Waste Management Service (PWMS). The SWMS notes that the site is appropriately managed however there is limited capacity at the site owing to significant waste generation and the rapid filling of landfill cells.

Pohnpei has taken proactive measures to reduce dumping of waste across the island. Central to this is the provision of free clean-up days where households can place waste on the roadside for free collection. The SWMS notes that Issues including stock piling of chemicals, metals, end of life vehicles and hazardous waste persist in Pohnpei (Figure 4.5).

The Pohnpei SWMS 2020-2029 identifies three strategic actions:

- Improvement of the CDL program.
- Proper management of final disposal site.
- Improvement of waste collection by Local Government.

Alongside the SWMS, the 2024 Pohnpei State Chemical Profile identifies the following challenges to be addressed:

- Ensuring all chemicals are identified, labeled and recorded in a database that can be updated.
- Equipping EPA with comprehensive regulations and enforcement procedures.
- Building capacity to handle, test and monitor chemical substances.



FIGURE 4.5. Stockpiled scrap metal in Pohnpei

3.6 FSM State Waste Profile – Yap

Yap State is located on the western periphery of the FSM and encompasses four closely located islands (Waab) and 134 low atolls.

In addition to the three branches of government employed by the other States, Yap has a fourth branch of governance for traditional powers – the Councils of Pilung (Yap Main Island) and Tamol (Yap's neighbouring Islands).

65% of waste in Yap is generated by households. Some waste from households is collected by the contractor of Department of Public Works & Transport (DPW&T), however the service is provided to only 16% of households in the State.

In terms of recycling, Yap has a well-functioning CDL recycling close to 2% of waste generated through the scheme. High transportation costs have prohibited the export of many recyclables collected under the CDL system, limiting its effectiveness. Recovery of materials in Yap is also supported by the chipping of green waste at the landfill.

The Yap State SWMS notes that disposal infrastructure in Yap has been used to limited effect. The Yap main public landfill in Colonia accepts 86% of discharged waste in the State. The remainder of waste discharged is dumped or placed into community dump sites. The community dump sites are rudimentary in design and are essentially big pits in the ground. The DPW&T understands where these dump sites are located, however the sites continue to be managed improperly.

The Yap SWMS 2018–2027 identifies several key strategic actions including:

- Expansion of waste collection service beyond Colonia.
- Privatization of waste collection service provided in Colonia.
- Enhancement of the CDL system.
- Proper management of public disposal site in Colonia.
- Green waste recycling.
- Proper management of inappropriate disposal waste such as waste oil and tires.

Alongside the SWMS, the 2024 Yap State Chemical Profile identifies the following challenges to be addressed:

- Improved processes and checks for chemical labelling and information storing.
- Condition of the public landfill site and leachate pond.
- There is limited resourcing to deliver enforcement of regulations, handle chemicals safely, and adhering to procedures.



FIGURE 4.6 Shop front in Yap State

4. FSM Waste Issues and Opportunities

4.1 Challenges and future needs

4.1.1 Sustainable financing

The FSM's solid waste management system relies on external sources, including international grants (e.g., from the Embassy of Japan, European Union and SPREP) and their COFA, to fund capital works (e.g., landfill design and construction) and operational works (e.g., collection and processing of materials and administrative costs).

Funding from these sources are neither guaranteed nor secure, and because of this, the waste management system across FSM is vulnerable to changes in the international economy and political systems/agreements.

Three out of the four states operate CDL programs and have the opportunity to amend in order to include other types of waste streams.

4.1.2 Disposal infrastructure

Challenges are arising based on existing waste management infrastructure in the States. Two examples stand out, these being: the Chuuk State Marina Dump Site and Kosrae State's ability to store and manage waste. Chuuk's marina dumpsite is nearing capacity and will need to be remediated and closed. In Kosrae, waste management capacity is not sufficient to deal with the current volume of waste being produced, including the ability to safely store or dispose of oil and electronic waste.

4.1.3 Processing infrastructure and stockpiling

In some cases, grant funding has supported the provision of processing equipment. For example, a wood chipper was supplied to Yap State through grant funding from the Embassy of Japan. Difficulties in operating and maintaining the equipment have however led to limited utilization of this equipment and prevented processing of materials in the FSM.

For some materials, export is the only viable option, for example materials such as e-waste and used oils. In 2019, 69,000 litres of used oil was exported to New Zealand for processing, and in 2020 490,000 litres of used oil from stockpiles was exported to South Korea. A lack of dedicated collection points, and a lack of an export scheme with the relevant equipment have proven a challenge in capturing these materials for export.

The cost of export, including any offshore revenue or processing costs, is another key consideration. For some materials the value in international markets offsets processing and shipping costs, for example aluminium cans and used lead acid batteries (ULABS). Many other materials require funding to cover shipping and/or processing costs. E-waste, used oil and PET bottles are examples.

4.1.4 Diverse legal frameworks

FSM is governed by The Constitution of the Federated States of Micronesia (Constitution). The Constitution is the supreme law of the FSM and includes a Bill of Rights. Contained within the Constitution are several references to the environment but no specific reference to solid waste.

It is, however, the National Government's role to provide overarching guidance on solid and hazardous waste management. The State-based framework for waste management in the FSM provides for the effective planning and implementation of activities at the regional and local level.

The nuanced differences in legal frameworks and responsible agencies in the FSM are not a problem as such, as each State must continue to have in place structures that work best for them and their people. It should be noted that enforcement of regulations has been acknowledged as a challenge across the States despite their differences in legal frameworks.

There may however be an opportunity to review the roles and responsibilities of each agency with the view to establish at least consistent baseline programs and capacity for enforcement. Based on current activity this could comprise CDL, household recycling standards, incentives to encourage proper waste management practices and penalties where non-compliance is detected.

4.1.5 Inconsistent data collection, monitoring and reporting across the FSM

As waste is managed by States at an individual level data collection, monitoring and reporting is inconsistent. This is not an issue in-and-of-itself, however at the national level it does present challenges. For example, in 2017, household surveys of waste generation were conducted in Kosrae, Pohnpei and Yap, but not Chuuk. This data was used to establish baseline figures for quantity and composition of waste across the FSM.

As well as for establishing national baseline data, consistent national waste data is used as an evidence base for applying for grant funding and for reporting on the progress and compliance with international agreements, e.g., reporting on CDL import and export figures.

Ideally, the FSM would be able to capture consistent data from across the four States to drive outcomes for the nation. Implementation of a standardized approach, such as the SPREP Regional Waste Data Collection, Monitoring and Reporting Framework would be beneficial, with the intention to complement existing frameworks, and/or replace them where duplication exists. Matching FSM's data collection with activity across the Pacific Region will enable data sharing and bench marking with other Pacific Island countries and territories.

4.1.6 Low quality imports

Due to limited manufacturing capacity, the FSM's economy largely relies on imports to provide goods, e.g., technology, vehicles, clothing, furniture, to its citizens. Some goods are typically imported from more developed countries and are often either low quality or used. The FSM has limited capacity or capability to repair such items, and so they also become waste quickly. The challenges presented to the FSM by these types of waste are summarized in Table 5.1.

TABLE 5.1 Imported materials and associated waste management challenges

IMPORTED MATERIALS	ASSOCIATED WASTE MANAGEMENT CHALLENGES	RESULTING ISSUES
Vehicles	▪ Limited capacity to repair and maintain vehicles. ▪ Limited understanding and infrastructure to dispose of vehicle parts safely and correctly. ▪ Lack of legislation to regulate import	▪ Dumping of vehicles in green spaces, on private property and at dump sites. ▪ Stockpiling of vehicle parts and hazardous materials.
Technology	▪ Limited capacity to repair and maintain technology. ▪ Limited understanding and infrastructure to dispose of vehicle parts safely and correctly.	▪ Improper disposal of e-waste. ▪ Leaching of hazardous materials. ▪ Risk of fire at dump sites.
Hazardous materials	▪ Limited understanding and infrastructure to identify and dispose of hazardous materials.	▪ Improper disposal of hazardous waste. ▪ Leaching of hazardous materials. ▪ Risk of soil and groundwater contamination.
Emerging waste streams e.g., e-cigarettes	▪ Limited understanding of new waste types and best practice guidance to dispose of these. ▪ Limited capacity to expand infrastructure to process and dispose of new waste types.	▪ Littering of new waste types. ▪ Risk of mismanagement across the waste management system (collection, transport and disposal).

4.2 Opportunities and strengths

4.2.1 Container deposit legislation

Across the States, CDL has been implemented to varying levels of success (Table 5.2). Yap State has been progressive in its management of recyclables, introducing the CDL system for beverage containers in 2003. Under the scheme, a 5-cent refund per container is paid per container returned. The mission for Yap is to improve and expand on the current legislation and scheme. Data reported by SPREP⁵ reports that the overall redemption rates for CDL in FSM are as follows:

TABLE 5.2 CDL performance in FSM

STATE	REPORTED REDEMPTION RATE ⁶	TARGET MATERIALS
Kosrae	86.1%	Aluminium cans, PET bottles, Glass bottles, Lead-acid batteries
Pohnpei	57.2%	Aluminium cans
Yap	>100% ⁷	Aluminium cans, PET bottles, Glass bottle

Note: Chuuk State CDL is pending legislative approval, while a Recycling Center has recently begun operations in the collection, crushing, baling, and exporting of aluminium cans.

There may be potential to align the materials collected across the States and to therefore collaborate around the marketing of materials and promotion of the scheme to communities.

4.2.2 Cross-State collaboration

Although the four States are governed independently, there is a unique opportunity to collaboratively address shared waste management issues. Through a collective approach, States can streamline strategies, share best practices, learn from successes and challenges, and optimize resources.

The National Government has worked to realize this opportunity, yet now there is scope for this activity to be furthered. This may include a cross-State working group to implement the waste National Waste Strategy, regular in-person or online meetings between States to report on progress and challenges, shared training/capability building, marketing of materials and cross-State mentoring where States have advanced initiatives more than their neighbors.

⁵ Container Deposit Schemes in the Pacific Islands – A guide for policy makers, J-PRISM II, JICA, 2022.

⁶ This is the percentage of all beverage containers returned for refund compared to the total number paying deposits. Redemption Rate by material type is available in some PICs where the deposits are collected and recorded by material type at the time of import or local production

⁷ The redemption rate in Yap state is reported as being greater than 100%⁵ this indicates that refunds are being paid for items that have not contributed toward the recycling fund.

4.2.3 Indigenous knowledge sharing

The FSM holds a unique opportunity to bring together indigenous wisdom and modern waste management strategies. The traditional knowledge embedded within each State, though varying in governance recognition, may offer pioneering, sustainable waste solutions rooted in historical usage patterns, resource conservation, and local ecosystem understanding.

4.2.4 Education

Providing education across the FSM about waste management is an opportunity for all States to embrace. By fostering an understanding of resource and waste-related challenges, long-term buy-in from diverse groups can be fostered, particularly for young people.

Capitalizing on the connections with existing institutions, such as churches and schools, can provide effective conduits for information sharing and building community buy-in relating to resource and waste management.

Education will be crucial for the successful implementation of any waste strategy and its associated policies, programs and standards, given the ability of education to help people engage in these challenges.

4.2.5 Micronesia Islands Forum

The Micronesia Islands Forum (MIF) Secretariat is an organization which plans for, and enhances, the quality of life throughout its member states while preserving each State's diverse culture. It consists of Chief Executives from Palau, Marshall Islands, FSM, Guam and Saipan. Every year, they meet and engage in a discussion of each country's challenges, way forward and propose next steps.

4.2.6 Micronesia Clean Up Day

An outcome of the 24th MIF was the declaration of September 13 as Micronesia Clean Up Day. The Government of the Federated States of Micronesia officially declared September 13 as a day to clean and preserve the islands' beauty. Everyone is recommended to conduct shoreline and beach clean ups, municipal clean ups, End of Life Vehicle removal, re-purposing of plastics, and effectively promoting the 3Rs in order to maintain a clean and healthy environment.

In 2019, the Micronesia Clean Up Day Planning Committee was established with a Terms of Reference focused on membership of National and State representatives in collaboration with partnerships in the private and public sector, with a set of proposed activities to be achieved for the day. The members of the committee agreed on a theme which has remained in use until today as it affirms FSM's commitment to achieve a clean environment. The theme of the Micronesia Clean Up Day efforts remains as, "Clean Islands for Healthier Communities in the FSM."

The annual activities conducted thus far through the efforts of the Micronesia Clean Up Day Planning Committee with its partners⁸ include the following:

2019 Island wide clean-up.

2020 Office Clean up.

2021 Fashion Show, highlighting Plastic and other forms of wear.

2022 Award Ceremony recognizing groups that engaged in a “Trash Challenge” and TIK TOK student winners.

2023 Award Ceremony recognizing students for their creation of a renewable energy model.

2024 State Municipal Clean Up efforts and Earth Day Contest school winners on plastics management.

4.2.7 Private Sector Collaboration

Collaboration with the Private Sector throughout the FSM States has been encouraged and on-going. Recent initiatives have engaged the businesses and the Chamber of Commerce to consider eco-friendly products and be part of an -ongoing dialogue that aims to tackle waste issues.

In the FSM, there are now five private companies providing waste management services to the general public, especially in the area of collection and disposal.

4.3 Focus Areas⁹

In FSM, waste management has historically been led by each of the States and their respective EPAs/ KIRMA by virtue of the legislative framework. The individual FSM State SWMS and associated action plans demonstrate that each of the States have proactively recognized their local challenges and opportunities and are actively working toward delivering better outcomes for their local environments and communities.

Common priority areas or issues identified in the FSM State SWMS that would benefit from attention and coordination at the national level are:

1. National coordination.
2. Sustainable finance through inter-organizational partnerships.
3. Capacity building and collaboration.
4. Ongoing solid and hazardous waste matters.

⁸ Partners include SPC, COM-FSM, JICA, VITAL MCT, and U.S. Embassy.

⁹ These focus areas have formed the basis of the action plan in Section 6.

5. Focus Areas and Action Plan – Years 1–5

5.1 FOCUS AREA 1 National coordination

National coordination describes the ability of the National Government to set a cohesive and unified vision for waste management across the FSM, with policies, standards and regulations to support its realization. Such coordination will empower the States to deliver their SWMS most effectively. This focus area has two key objectives which will be achieved via the delivery of their associated actions. These are set out in Table 6.1.

TABLE 6.1 National coordination action plan

ACTIONS	TIMING	KEY PERFORMANCE INDICATORS	LEAD ORGANIZATION	SUPPORTING ORGANIZATION
OBJECTIVE 1. FSM meets all their obligations in relation to international agreements, including reporting requirements, in relation to solid and hazardous waste management.				
ACTION 1.1. FSM Waste Management Working Group is established, with members from all States and the National Government to: - Oversee the delivery of the National Waste Strategy. - Coordinate the collation of data from each State in line with SPREP’s Regional Waste Data Collection, Monitoring and Reporting Framework. - Establish a framework to highlight where progress toward meeting international agreements is needed. - Discuss emerging challenges and new waste streams.	Duration of National Waste Management Strategy, commencing in 2025	- National Waste Management Working Group is established with and agreed Terms of Reference. - Fulfillment of Multilateral Environmental Agreement (MEA) reporting requirements. - Years 1 and 2 – All Core KPIs from the SPREP Data Framework are reported on by all States. - Years 3, 4 and 5 – All Core and Supplementary KPIs from SPREPs data framework are reported on by all States.	National Government	State EPAs and KIRMA
OBJECTIVE 2. The FSM has a National Solid and Hazardous Waste Policy that reflects their obligations to international agreements and provides guidance for compliant, safe and responsive management of waste.				
ACTION 1.2. The National Solid and Hazardous Waste Management Policy endorsed by State EPAs and KIRMA.	By 2025	Unanimous endorsement of the FSM National Solid and Hazardous Waste Management Policy.	National Government	State EPAs and KIRMA

5.2 FOCUS AREA 2 Sustainable finance through inter-organizational partnerships

Sustainable finance through inter-organizational partnerships centers on the FSM National Government forging strategic relationships to secure finance to establish self-sustaining waste management systems. This includes systems that can sustain their operations and maintenance, and which respond to changes and accommodate growth. This focus area has three key objectives which will be achieved via the delivery of their associated actions, set out in Table 6.2.

TABLE 6.2 Sustainable finance through inter-organizational partnerships action plan

ACTIONS	TIMING	KEY PERFORMANCE INDICATORS	LEAD ORGANIZATION	SUPPORTING ORGANIZATION
OBJECTIVE 3. The FSM National Government identifies opportunities and provides guidance for States to undertake joint procurement for waste management infrastructure and services, e.g., purchase of similar equipment that allows for ease of obtaining maintenance support from across the FSM.				
ACTION 2.1 FSM National Government, in collaboration with the FSM Waste Management Working Group, prepares a list of prioritized opportunities for joint procurement based on action plans for the State SWMS.	By June 2025	List of prioritized opportunities confirmed, and the National Government supports the States to progress with collaborative procurement when required.	National Government	FSM Waste Management Working Group
OBJECTIVE 4. The FSM National Government establishes a working group to work on prioritisation of projects and issues which will require international funding, and who then advise on and support the States in funding applications, implementation and operation.				
ACTION 2.2. FSM Waste Management Working Group hosts a forum for States to prioritize activities that require funding e.g., a national CDL.	By 30 June 2025	A prioritized list of activities is established following a forum, hosted by the National Government with all States in attendance.	National Government	State EPAs and KIRMA
ACTION 2.3. States apply for funding based on agreed priorities from Action 2.2 using support mechanisms outlined Action 2.5.	From 2026 onwards	States apply for funding agreed prioritized activities.	FSM Waste Management Working Group	National Government

ACTIONS	TIMING	KEY PERFORMANCE INDICATORS	LEAD ORGANIZATION	SUPPORTING ORGANIZATION
OBJECTIVE 5. The FSM National Government maintains critical relationships with major funding and development partners, which enables States to realize projects.				
ACTION 2.4. FSM Waste Management Working Group prepares a stakeholder map of development agencies and their funding opportunities that are available to the States. (This action directly influences Action 2.3.)	2025	Stakeholder map is published and presented to the States and the FSM Waste Working Group.	National Government	Not applicable
ACTION 2.5. FSM Waste Management Working Group develops standardized process for States to follow to apply for funding from development agencies.	2025	Standardized process for States applying to development agencies is agreed on and endorsed by all States and the National Government.	FSM Waste Management Working Group	National Government
ACTION 2.6. FSM National Government representatives host a biannual funding forum involving key funder to connect with agencies and highlight FSM specific issues.	From 2025 onwards.	One forum is hosted by the National Government either online or in-person with at least 4 funding agencies in attendance each year of the National Waste Strategy.	National Government	FSM Waste Management Working Group



5.3 FOCUS AREA 3 Capacity building and collaboration

Capacity building and collaboration addresses the need to strengthen the abilities and competencies of individuals, organizations, and communities involved in waste management across all the FSM States. Effective capacity building will empower each State to efficiently manage waste through utilizing best practices, knowledge and skills, and improved infrastructure. This focus area has four key objectives which will be achieved via the delivery of their associated actions, set out in the table.

TABLE 6.3 Capacity building and collaboration action plan

ACTIONS	TIMING	KEY PERFORMANCE INDICATORS	LEAD ORGANIZATION	SUPPORTING ORGANIZATION
OBJECTIVE 6. The FSM has a national waste education and awareness campaign.				
ACTION 3.1. An expert committee, with at least one representative from each State, is established to lead the development of a national waste education and awareness campaign. The committee will report to the FSM Waste Working Group.	To commence no later than 1 July 2025	A committee is established with agreed Terms of Reference and at least one representative from each State.	Expert committee	FSM Waste Management Working Group; National Government
ACTION 3.2. The expert committee prepares a campaign plan that includes incorporates both national- and State-level messaging and activities and uses this plan to secure funding to aid the delivery of the campaign.	Campaign plan to be complete by 31 March 2026; Funding secured by 31 December 2026.	Funding is secured for the national waste education and awareness campaign, and this is established and in place by 2027.	Expert committee	FSM Waste Management Working Group; National Government
OBJECTIVE 7. The FSM are equipped to meet current and future reporting requirements.				
ACTION 3.3. FSM National Government endorses the SPREP data framework and provides support for States to collect and collate data.	By 31 December 2024.	See Key Performance Indicators 3 and 4.	National Government	State EPAs and KIRMA
OBJECTIVE 8. The FSM are positioned to respond to and manage emerging waste types.				
ACTION 3.4. FSM Waste Management Working Group has standing agenda item to discuss new waste types being detected at the State level to allow for a coordinated response, where needed, and appropriate policy interventions.	From the establishment of the FSM Waste Working Group	Standing agenda item for new waste types placed on FSM Waste Working Group meeting agenda.	FSM Waste Management Working Group	Not applicable

OBJECTIVE 9. States are enabled to manage waste resulting from natural disasters, i.e., disaster waste.

ACTION 3.5. FSM Waste Management Working Group prepares and publishes best practice guidance for managing disaster waste and, where relevant, draws on material developed at a Pacific Region level. The guidance is reviewed by a technical expert and updated every five years.	2025–2026	Best practice guidance for managing disaster waste is established and endorsed by the National Government and all States.	FSM Waste Management Working Group	National Government
ACTION 3.6. A scope of work is prepared to undertake an assessment of available disposal infrastructure, highlighting where additional disposal capacity exists for disaster specific waste.	2025–2026	Assessment of available disposal infrastructure is undertaken, which includes where capacity exists for disaster specific waste.	National Government	FSM Waste Working Group



5.4 FOCUS AREA 4 Ongoing solid and hazardous waste matters

Ongoing solid and hazardous waste issues include difficulties related to the generation, handling, disposal, and long-term impacts of solid and hazardous waste including challenges with regulatory compliance, enforcement of waste policies, and the promotion of sustainable waste practices across the FSM. 5 objectives will be progressed to address the ongoing solid and hazardous waste issues. This focus area has five key objectives which will be achieved via the delivery of their associated actions, set out in Table 6-4.

TABLE 6.4 Ongoing solid and hazardous waste matters action plan

ACTIONS	TIMING	KEY PERFORMANCE INDICATORS	LEAD ORGANIZATION	SUPPORTING ORGANIZATION
OBJECTIVE 10. FSM National Government provides best practice guidance for the management, remediation and construction of disposal facilities including landfills and dump sites.				
ACTION 4.1. With the support of the FSM Waste Management Working Group, the National Government prepares and publishes best practice guidance for the management, remediation and construction of disposal facilities including landfills and dump sites in the FSM. Where relevant, material developed at a Pacific Region level is used.	Published by end of 2028.	Inaugural guidance is published and endorsed by a technical reviewer by end of 2028.	National Government	FSM Waste Working Group
ACTION 4.2. Best practice guidance is reviewed by a technical expert and updated every five years.	First review undertaken in 2033.	Guidance is reviewed and updated in 2033.	National Government	FSM Waste Working Group
OBJECTIVE 11. The FSM National Government equips the States to clear stockpiled end-of-life vehicles and prevent the future stockpiling of this material.				
ACTION 4.3. FSM Waste Management Working Group undertakes work to define a legacy waste clearance project and develop ARFD scheme to address ongoing waste generation.	To commence in 2026.	A scope of works is prepared and presented to funding and development agencies.	FSM Waste Management Working Group	National Government
ACTION 4.4. FSM Waste Management Working Group project manages a stock-take of vehicles in each State enabling proper planning for disposal and the potential export of end-of-life vehicles.	Throughout 2026.	A stock-take of vehicles across all States is completed recording the number, type and location of end-of-life vehicles.	State EPAs and KIRMA	Municipal Governments

ACTIONS	TIMING	KEY PERFORMANCE INDICATORS	LEAD ORGANIZATION	SUPPORTING ORGANIZATION
OBJECTIVE 12. Establish a comprehensive and integrated system for the safe management of medical and chemical waste.				
ACTION 4.5. FSM Waste Management Working Group prepares a scope of works to engage a provider that will prepare a policy, infrastructure and capacity building framework for medical and chemical waste management.	2027–2028	A comprehensive and integrated system for the safe management of medical and chemical waste is established in the FSM.	FSM Waste Management Working Group	National Government
OBJECTIVE 13. Create a robust national framework for e-waste management.				
ACTION 4.6. FSM Waste Management Working Group prepares a scope of works to engage a provider that will prepare policy, infrastructure and capacity building framework for e-waste management.	2027–2028	A comprehensive and integrated system for the safe management of e-waste is established in the FSM.	FSM Waste Management Working Group	National Government
OBJECTIVE 14. Limit the generation of waste as a result of low-quality imports.				
ACTION 4.7. FSM Waste Management Working Group prepares a scope of works to engage a provider that will define priority materials and draft import standards for these materials.	2026–2029	Import standards are established for at least two priority materials by 2029.	FSM Waste Management Working Group	National Government
OBJECTIVE 15. Develop a coordinated understanding of the whole nation's waste assets.				
ACTION 4.8. FSM Waste Management Working Group project manages a stock-take of available infrastructure across the States.	2025–2026	See Key Performance Indicator 3. This information is one of the Core KPIs identified in the SPREP Regional Waste Data Collection, Monitoring and Reporting Framework.	FSM Waste Management Working Group	National Government
ACTION 4.9. Based on the stock-take, the FSM Working Group, together with the National Government prepare a prioritized list of infrastructure capacity actions requiring funding.	2027	A prioritized list of infrastructure capacity is prepared by the end of 2027.	FSM Waste Management Working Group	National Government

6. Formal Reviews

To ensure the National Waste Management Strategy remains relevant and resilient to change, the FSM National Government is committed to undertake a formal review process in 2029, following completion of the first five-year action plan.

The purpose of this review will be to evaluate progress on each of the focus areas and actions against their respective performance metrics. It will also consider changes in the waste sector, advancements in industry practices, environmental concerns and stakeholder feedback.

Together, this information will be used to revise the National Waste Management Strategy, if needed, and develop the next five-year action plan. This will take us to the end of the National Waste Management Strategy's period, at which time a second formal review process will occur.

The purpose of this second review is to inform the 'next' National Waste Management Strategy for FSM.





FSM NATIONAL SOLID AND HAZARDOUS WASTE MANAGEMENT STRATEGY 2024–2034

MONITORING AND EVALUATION PLANNER

Introduction

The National Solid and Hazardous Waste Management Strategy 2024–2034 of the Federated States of Micronesia provides the strategic vision and direction for waste management over a ten-year period. It has been developed in consultation with stakeholders from each of the four FSM States, as well as the private sector, NGOs, communities, and Municipal and National Government representatives.

This Monitoring and Evaluation Planner provides a centralised place for the collation of data which will help to inform the progress of the National Waste Management Strategy, propelling the FSM towards achieving their vision, that, ‘The Federated States of Micronesia consider all waste as a valuable resource to be managed sustainably’.

Summary

This table will show you a summary of progress on S&HWS actions, core and supplementary KPI actions. The cells will automatically update when the S&HWS Actions and SPREP KPIs sheets are updated.

S&HWS Actions

This table described the focus areas, objectives, actions, timing. KPIs, and the lead and supporting organisation. On 30 June and 31 December each year the status of each action needs to be updated by choosing from the dropdown list and additional comments can be made.

SPREP KPI's

- **Core KPIs** – There are blue highlighted cells for the core KPIs that need to be filled out from year 1 to 5. The cells will go clear once a value has been inserted.
- **Supplementary KPIs** – There are blue highlighted cells for the supplementary KPIs that need to be filled out from year 3 to 5. The cells will go clear once a value has been inserted.
- **SPREP specific KPIs** – There are red highlighted cells for the years that actions need to begin or should be finished.

Data for lists

Do not alter this sheet as excel formulas are linked to the cell values.

SUMMARY

Progress on S&HWS Actions

Total actions complete	Status at 30/6/24	Status at 31/24	Status at 30/6/25	Status at 31/12/25	Status at 30/6/26	Status at 31/12/26	Status at 30/6/27	Status at 31/12/27	Status at 30/6/28	Status at 31/12/29
Not started	26	26	26	26	26	26	26	26	26	26
In progress	0	0	0	0	0	0	0	0	0	0
At risk	0	0	0	0	0	0	0	0	0	0
Off track	0	0	0	0	0	0	0	0	0	0
Completed	0	0	0	0	0	0	0	0	0	0

Core KPIs – Percentage of actions completed

	Year 1	Year 2	Year 3	Year 4	Year 5
Chuuk	0%	0%	0%	0%	0%
Kosrae	0%	0%	0%	0%	0%
Pohnpei	0%	0%	0%	0%	0%
Yap	0%	0%	0%	0%	0%
FSM	0%	0%	0%	0%	0%

Supplementary KPIs – Percentage of actions completed

	Year 3	Year 4	Year 5
Chuuk	0%	0%	0%
Kosrae	0%	0%	0%
Pohnpei	0%	0%	0%
Yap	0%	0%	0%
FSM	0%	0%	0%

S&HWS ACTIONS

Focus Area	Objectives	Actions	Timing	Key Performance Indicators	Lead organisation	Supporting organisation	Status at 30/6/24
1. NATIONAL COORDINATION. National coordination describes the ability of the National Government to set a cohesive and unified vision for waste management across the FSM, with policies, standards and regulations to support its realisation. Such coordination will empower the States to deliver their SWMS most effectively. This focus area has two key objectives which will be achieved via the delivery of their associated actions.	OBJECTIVE 1. FSM meets all their obligations in relation to international agreements, including reporting requirements, in relation to solid and hazardous waste management.	ACTION 1.1. FSM Waste Working Group is established, with members from all States and the National Government to: • Oversee the delivery of the National Waste Management Strategy. • Coordinate the collation of data from each State in line with SPREP's Regional Waste Data Collection, Monitoring and Reporting Framework. • Establish a framework to highlight where progress toward meeting international agreements is needed. • Discuss emerging challenges and new waste streams.	Duration of National Waste Strategy, commencing in 2024.	1. National Waste Working Group is established with and agreed Terms of Reference. 2. Fulfilment of Multilateral Environmental Agreement (MEA) reporting requirements. 3. Years 1 and 2 – All Core KPIs from the SPREP Data Framework are reported on by all States. 4. Years 3, 4 and 5 – All Core and Supplementary KPIs from SPREPs data framework are reported on by all States.	National Government	State EPAs and KIRMA	Not started
	OBJECTIVE 2. The FSM has a National Solid and Hazardous Waste Management Policy that reflects their obligations to international agreements and provides guidance for compliant, safe and responsive management of waste.	ACTION 1.2. The National Solid and Hazardous Waste Management Policy endorsed by State EPAs and KIRMA.	By July 2024 and onward.	5. Unanimous endorsement of the FSM National Solid and Hazardous Waste Management Policy.	National Government	State EPAs and KIRMA	Not started
2. SUSTAINABLE FINANCE THROUGH INTER-ORGANISATIONAL PARTNERSHIPS. Sustainable finance through inter-organisational partnerships centres on the FSM National Government forging strategic relationships to secure finance to establish self-sustaining waste management systems. This includes systems that can sustain their operations and maintenance, and which respond to changes and accommodate growth. This focus area has three key objectives which will be achieved via the delivery of their associated actions	OBJECTIVE 3. The FSM National Government identifies opportunities and provides guidance for States to undertake joint procurement for waste management infrastructure and services, e.g., purchase of similar equipment that allows for ease of obtaining maintenance support from across the FSM.	ACTION 2.1 FSM National Government, in collaboration with the FSM Waste Working Group, prepares a list of prioritised opportunities for joint procurement based on action plans for the State SWMS.	By 30 June 2025 and onward.	6. List of prioritised opportunities confirmed, and the National Government supports the States to progress with collaborative procurement when required.	National Government	FSM Waste Working Group	Not started
	OBJECTIVE 4. The FSM National Government establishes a working group to work on prioritisation of projects and issues which will require international funding, and who then advise on and support the States in funding applications, implementation and operation.	ACTION 2.2. FSM Waste Working Group hosts a forum for States to prioritise activities that require funding e.g., a national CDL.	By 30 June 2025 and onward.	7. A prioritised list of activities is established following a forum, hosted by the National Government with all States in attendance.	National Government	State EPAs and KIRMA	Not started
		ACTION 2.3. States apply for funding based on agreed priorities from ACTION 2.2 using support mechanisms outlined ACTION 2.5.	From 2026 onwards.	8. States apply for funding agreed prioritised activities.	FSM Waste Working Group	National Government	Not started
	OBJECTIVE 5. The FSM National Government maintains critical relationships with major funding and development partners, which enables States to realise projects.	ACTION 2.4. FSM Waste Working Group prepares a stakeholder map of development agencies and their funding opportunities that are available to the States. (This action directly influences ACTION 2.3.)	2024 and onward.	9. Stakeholder map is published and presented to the States and the FSM Waste Working Group.	National Government	Not applicable	Not started
		ACTION 2.5. FSM Waste Working Group develops standardised process for States to follow to apply for funding from development agencies.	2025 and onward.	10. Standardised process for States applying to development agencies is agreed on and endorsed by all States and the National Government.	FSM Waste Working Group	National Government	Not started
		ACTION 2.6. FSM National Government representatives host a biannual funding forum involving key funders to connect with agencies and highlight FSM specific issues.	From 2025 onwards.	11. One forum is hosted by the National Government either online or in-person with at least 4 funding agencies in attendance each year of the National Waste Strategy.	National Government	FSM Waste Working Group	Not started

Focus Area	Objectives	Actions	Timing	Key Performance Indicators	Lead organisation	Supporting organisation	Status at 30/6/24
3. CAPACITY BUILDING AND COLLABORATION. Capacity building and collaboration addresses the need to strengthen the abilities and competencies of individuals, organizations, and communities involved in waste management across all the FSM States. Effective capacity building will empower each State to efficiently manage waste through utilising best practices, knowledge and skills, and improved infrastructure. This focus area has four key objectives which will be achieved via the delivery of their associated actions.	OBJECTIVE 6. The FSM has a national waste education and awareness campaign.	ACTION 3.1. An expert committee, with at least one representative from each State, is established to lead the development of a national waste education and awareness campaign. The committee will report to the FSM Waste Working Group.	To commence no later than 1 July 2025	12. A committee is established with agreed Terms of Reference and at least one representative from each State.	Expert committee	FSM Waste Working Group; National Government	Not started
		ACTION 3.2. The expert committee prepares a campaign plan that includes and incorporates both national- and State-level messaging and activities and uses this plan to secure funding to aid the delivery of the campaign.	Campaign plan to be complete by 31 March 2026; Funding secured by 31 December 2026	13. Funding is secured for the national waste education and awareness campaign, and this is established and in place by 2027.	Expert committee	FSM Waste Working Group; National Government	Not started
	OBJECTIVE 7. The FSM are equipped to meet current and future reporting requirements.	ACTION 3.3. FSM National Government endorses the SPREP data framework and provides support for States to collect and collate data.	By 31 December 2024.	See Key Performance Indicators 3 and 4.	National Government	State EPAs and KIRMA	Not started
	OBJECTIVE 8. The FSM are positioned to respond to and manage emerging waste types.	ACTION 3.4. FSM Waste Working Group has standing agenda item to discuss new waste types being detected at the State level to allow for a coordinated response, where needed, and appropriate policy interventions.	From the establishment of the FSM Waste Working Group	14. Standing agenda item for new waste types placed on FSM Waste Working Group meeting agenda.	FSM Waste Working Group	Not applicable	Not started
	OBJECTIVE 9. States are enabled to manage waste resulting from natural disasters, i.e., disaster waste.	ACTION 3.5. FSM Waste Working Group prepares and publishes best practice guidance for managing disaster waste and, where relevant, draws on material developed at a Pacific Region level. The guidance is reviewed by a technical expert and updated every five years.	2025-2026	15. Best practice guidance for managing disaster waste is established and endorsed by the National Government and all States.	FSM Waste Working Group	National Government	Not started
		ACTION 3.6. A scope of work is prepared to undertake an assessment of available disposal infrastructure, highlighting where additional disposal capacity exists for disaster specific waste.	2025-2026	16. Assessment of available disposal infrastructure is undertaken, which includes where capacity exists for disaster specific waste.	National Government	FSM Waste Working Group	Not started

Focus Area	Objectives	Actions	Timing	Key Performance Indicators	Lead organisation	Supporting organisation	Status at 30/6/24
1.1 FOCUS AREA 4 – ONGOING SOLID AND HAZARDOUS WASTE MATTERS. Ongoing solid and hazardous waste issues include difficulties related to the generation, handling, disposal, and long-term impacts of solid and hazardous waste including challenges with regulatory compliance, enforcement of waste policies, and the promotion of sustainable waste practices across the FSM. 5 objectives will be progressed to address the ongoing solid and hazardous waste issues. This focus area has five key objectives which will be achieved via the delivery of their associated actions	OBJECTIVE 10. FSM National Government provides best practice guidance for the management, remediation and construction of disposal facilities including landfills and dump sites.	ACTION 4.1. With the support of the FSM Waste Working Group, the National Government prepares and publishes best practice guidance for the management, remediation and construction of disposal facilities including landfills and dump sites in the FSM. Where relevant, material developed at a Pacific Region level is used.	Published by end of 2028.	17. Inaugural guidance is published and endorsed by a technical reviewer by end of 2028.	National Government	FSM Waste Working Group	Not started
		ACTION 4.2. Best practice guidance is reviewed by a technical expert and updated every five years	First review undertaken in 2033.	18. Guidance is reviewed and updated in 2033.	National Government	FSM Waste Working Group	Not started
	OBJECTIVE 11. The FSM National Government equips the States to clear stockpiled end-of-life vehicles and prevent the future stockpiling of this material.	ACTION 4.3. FSM Waste Working Group undertakes work to define a legacy waste clearance project and develop ARFD scheme to address ongoing waste generation.	To commence in 2026.	19. A scope of works is prepared and presented to funding and development agencies.	FSM Waste Working Group	National Government	Not started
		ACTION 4.4. FSM Waste Working Group project manages a stocktake of vehicles in each State enabling proper planning for disposal and the potential export of end-of-life vehicles.	Throughout 2026	20. A stocktake of vehicles across all States is completed recording the number, type and location of end-of-life vehicles.	State EPAs and KIRMA	Municipal Governments	Not started
	OBJECTIVE 12. Establish a comprehensive and integrated system for the safe management of medical and chemical waste.	ACTION 4.5. FSM Waste Working Group prepares a scope of works to engage a provider that will prepare a policy, infrastructure and capacity building framework for medical and chemical waste management.	2027-2028	21. A comprehensive and integrated system for the safe management of medical and chemical waste is established in the FSM.	FSM Waste Working Group	National Government	Not started
	OBJECTIVE 13. Create a robust national framework for e-waste management.	ACTION 4.6. FSM Waste Working Group prepares a scope of works to engage a provider that will prepare policy, infrastructure and capacity building framework for e-waste management.	2028-2028	22. A comprehensive and integrated system for the safe management of e-waste is established in the FSM.	FSM Waste Working Group	National Government	Not started
	OBJECTIVE 14. Limit the generation of waste as a result of low-quality imports.	ACTION 4.7. FSM Waste Working Group prepares a scope of works to engage a provider that will define priority materials and draft import standards for these materials.	2026-2029	23. Import standards are established for at least two priority materials by 2029.	FSM Waste Working Group	National Government	Not started
	OBJECTIVE 15. Develop a coordinated understanding of the whole nation's waste assets.	ACTION 4.8. FSM Waste Working Group project manages a stocktake of available infrastructure across the States.	2025-2026	See Key Performance Indicator 3. This information is one of the Core KPIs identified in the SPREP Regional Waste Data Collection, Monitoring and Reporting Framework.	FSM Waste Working Group	National Government	Not started
		ACTION 4.9. Based on the stocktake, the FSM Working Group, together with the National Government prepare a prioritised list of infrastructure capacity actions requiring funding.	2027	24. A prioritised list of infrastructure capacity is prepared by the end of 2027.	FSM Waste Working Group	National Government	Not started

SPREP KPIs

SPREP Core KPIs

		Year 1 – 2024					Year 2 – 2025					Year 3 – 2026					Year 4 – 2027					Year 5 – 2028				
		CHUUK					KOSRAE					POHNPEI					YAP					FSM				
MEASURE		Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5
1. Count / capacity of modern waste facilities.	Landfills & Dumpsites																									
	Recycling processors & Material recovery facilities																									
	Organics processing facilities																									
	Incinerators																									
	Transfer Stations																									
2. Count / capacity of unregulated waste facilities.	Landfills & Dumpsites																									
	Recycling processors & Material recovery facilities																									
	Organics processing facilities																									
	Incinerators																									
	Transfer Stations																									
3. National recovery rate.	Tonnes of material disposed to landfill, dumpsites & incineration																									
	Tonnes of material recovered for recycling, composting etc.																									
4. Per capita waste generation rate.	Tonnes of waste material generated in FSM																									
	Population																									
5. Municipal Solid Waste (MSW) composition.	Metal																									
	Fishing																									
	Paper & Cardboard																									
	Plastic																									
	Single use plastic items																									
	Batteries																									
	E-Waste																									
	Glass																									
	Hygiene																									
	Hazardous																									
6. Household waste capture rate.	Tonnes of waste captured by management services																									
	Tonnes of household waste generated																									
7. Household collection service coverage.	Number of households surveyed with access to a collection service																									
	Total number of households surveyed																									
8. Fulfillment of Multilateral Environmental Agreement (MEA) reporting requirements.	Number of satisfactorily completed reports																									
	Total number of reports required																									

Supplementary KPIs

	Year 1 – 2024					Year 2 – 2025					Year 3 – 2026					Year 4 – 2027					Year 5 – 2028				
	CHUUK					KOSRAE					POHNPEI					YAP					FSM				
	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5
1. Cost of disposal to landfill.																									
2. Weight of waste disposed.																									
3. Weight of waste recovered.																									
4. Volume and type of stockpiled hazardous waste.																									
5. Marine plastic pollution potential.																									
6. Awareness and support of waste management services.																									
7. Proportion of strategic waste management initiatives implemented.																									
8. Commercial waste capture rate.																									
9. Commercial collection service coverage.																									
10. Weight of disaster waste disposed.																									

SPREP S&HWS Actions

	CHUUK					KOSRAE					POHNPEI					YAP					FSM				
	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5
1. National Waste Working Group is established with and agreed Terms of Reference.																									
2. Fulfilment of Multilateral Environmental Agreement (MEA) reporting requirements.																									
3. Years 1 and 2 – All Core KPIs from the SPREP Data Framework are reported on by all States.																									
4. Years 3, 4 and 5 – All Core and Supplementary KPIs from SPREPs data framework are reported on by all States.																									
5. Unanimous endorsement of the FSM National Solid and Hazardous Waste Management Policy.																									
6. List of prioritised opportunities confirmed, and the National Government supports the States to progress with collaborative procurement when required. Regional-Waste-DCMR-Framework.pdf (sprep.org)																									
7. A prioritised list of activities is established following a forum, hosted by the National Government with all States in attendance.																									
8. States apply for funding agreed prioritised activities.																									
9. Stakeholder map is published and presented to the States and the FSM Waste Working Group.																									
10. Standardised process for States applying to development agencies is agreed on and endorsed by all States and the National Government.																									
11. One forum is hosted by the National Government either online or in-person with at least 4 funding agencies in attendance each year of the National Waste Strategy.																									
12. A committee is established with agreed Terms of Reference and at least one representative from each State.																									
13. Funding is secured for the national waste education and awareness campaign, and this is established and in place by 2027.																									
14. Standing agenda item for new waste types placed on FSM Waste Working Group meeting agenda.																									
15. Best practice guidance for managing disaster waste is established and endorsed by the National Government and all States.																									
16. Assessment of available disposal infrastructure is undertaken, which includes where capacity exists for disaster specific waste.																									
17. Inaugural guidance is published and endorsed by a technical reviewer by end of 2028.																									
18. Guidance is reviewed and updated in 2033.																									
19. A scope of works is prepared and presented to funding and development agencies.																									
20. A stocktake of vehicles across all States is completed recording the number, type and location of end-of-life vehicles.																									
21. A comprehensive and integrated system for the safe management of medical and chemical waste is established in the FSM.																									
22. A comprehensive and integrated system for the safe management of e-waste is established in the FSM.																									
23. Import standards are established for at least two priority materials by 2029.																									
24. A prioritised list of infrastructure capacity is prepared by the end of 2027.																									





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