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SPREP
Secretariat of the Pacific Regional Environment Programme

PacWastePlus
PACIFIC WASTE MANAGEMENT

This initiative is supported by **PacWastePlus**-a 72 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.**

Introduction to a Pacific Circular Economy

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PO Box 240

Apia, Samoa

T: +685 21929

E: sprep@sprep.org

W: www.sprep.org

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

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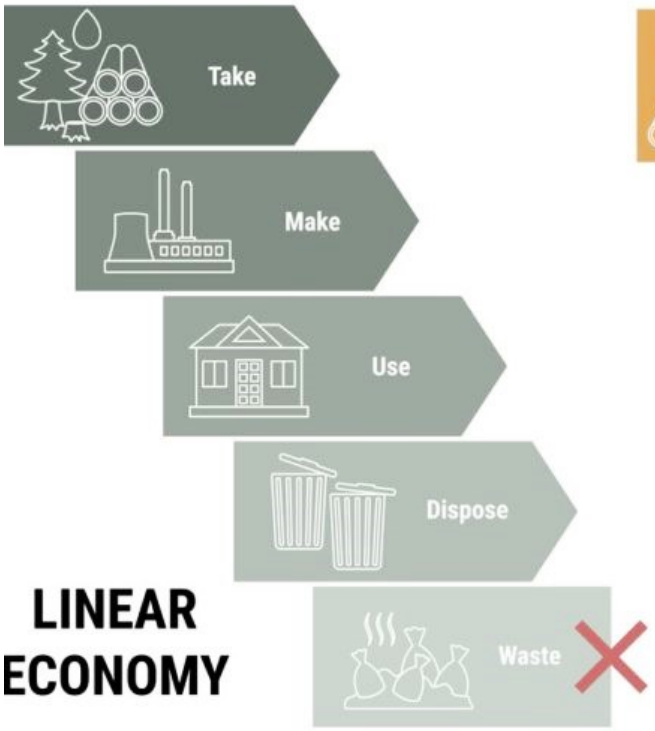


What is Circular Economy

The Issue:

Globally, consumption patterns generally following a linear “take-make-waste” model.

In the Pacific and Timor-Leste this means that items are imported or manufactured, and, at the end of their useful life, there are limited viable alternatives but for the items to be disposed into overflowing landfills or the environment. When items are disposed without recycling, we are throwing away precious materials, resulting in the need for new resources to be extracted.

This linear model impacts Pacific islands and Timor-Leste by contributing to[1]:

- overflowing landfills – waste disposed estimated at 1,141 tonnes per day
- marine pollution - marine plastic pollution potential of estimated at 365 tonnes per day
- terrestrial pollution (burned, buried, littered, or dumped) - estimated at 227 tonnes per day
- and climate change, and biodiversity loss effects.

The costs of this linear model are borne by national and local governments for landfill management – cost of disposing waste for the region an estimated USD $44,293 per day1 – and by the health of communities and the environment.

[1] PacWaste Plus - Regional Waste Audit Analysis Report - https://pacwasteplus.org/resources/regional-waste-audit-analysis-report/

The Alternative:

A Circular Economy approach seeks to replace the "take-make-waste" linear model with a circular model, rethinking how we produce, consume, and dispose resources.

A Circular Economy approach for waste management aims to reduce waste by keeping resources in use for as long as possible through:

- re-designing products to "design out waste" and only manufacturing items that can be reused, repaired, or recycled
- providing consumers, the "right to repair" the items they consume
- developing closed-loop systems that enable remanufacturing and reusing items, keeping resources in use - as an alternative to continually extracting non-renewable resources.

Applicability of Circular Economy in the Pacific and Timor-Leste

The Circular Economy approaches applicable to Pacific islands and Timor-Leste include:

- **Raw materials** – utilising biodiversity of the region in manufacturing to create items from local plants, materials, minerals – flax, tree bark, etc – as a replacement for plastic-based imported products. Manufacturing consumer items from local renewable products provides a true example of a Circular Economy approach.
- **Design and production** – utilising traditional knowledge in the design and production of the items we consume
- **Retail and consumption** – importers and consumers (households) understanding the power of their choices. Being aware of the end-of-life management of items and choosing to import/consume only products that can be repaired, reused, and recycled locally. Circular Economy principles for product choice can also be influenced through importation controls and quality restrictions.
- **Reuse and repair** – communities having access to facilities to enable the reuse (i.e., washing systems for glass bottles, food containers, nappies, etc) and repair (electronic repair or restoration facilities) of the items they consume
- **Collection** – communities having access to services to collect items and access facilities to enable their reuse, repair, or recycling
- **Recycling** – communities having access to facilities to recycle items – either through the ability to reach overseas recycling markets, or with the establishment of appropriate (to suit the local scale) in-country recycling facilities (such as organics recycling (i.e., compost) programmes, or facilities to recycling plastic into items such as building products (that can be recycled again once they reach the end of their useful life)

Raw Materials *– utilising biodiversity of the region in manufacturing to create* ***items from local plants, materials, and minerals*** *– flax, tree bark, etc. – as a replacement for plastic-based imported products.* ***Manufacturing consumer items from local renewable products*** *provides a true example of a Circular Economy approach.*

Design and Production *– utilising* ***traditional knowledge*** *in the design and production of the items we consume.*

Recycling *– communities having access to* ***facilities to recycle items*** *– either through the ability to reach* ***overseas recycling markets****, or with the establishment of appropriate (to suit the local scale)* ***in-country recycling facilities*** *(such as organics recycling (i.e., compost) programmes, or facilities to recycling plastic into items such as building products (that can be recycled again once they reach the end of their useful life).*

Collection *– communities having access to* ***services to collect items*** *and access facilities to enable their reuse, repair, or recycling.*

Retail and Consumption *– importers and consumers (households) understanding the power of their choices. Being aware of the end-of-life management of items and* ***choosing to import/consume only products that can be repaired, reused, and recycled locally.*** *Circular Economy principles for product choice can also be influenced through* ***importation controls and quality restrictions****.*

Reuse and Repair *– communities having access to* ***facilities to enable the reuse*** *(i.e., washing systems for glass bottles, food containers, nappies, etc.) and* ***repair*** *(electronic repair or restoration facilities) of the items they consume.*

Benefits of Circular Economy in the Pacific and Timor-Leste

Implementing a Circular Economy approach, through the establishment of systems to reuse, repair, and recycle items, can have a positive impact to the Pacific islands and Timor-Leste through:

Reduced waste disposal - a Circular Economy approach would minimise the reliance on waste disposal and dumping – providing instead for the "waste" to be reused, repaired, or recycled as a beneficial "resource"

Increased resilience - a shift towards a Circular Economy can provide for locally made alternatives and less resilience on imported items, such as purchase of local compost instead of imported chemical fertilizer.

Enabling local innovation - a Circular Economy approach can enable the development of local alternatives, potentially leading to increased innovation and entrepreneurship across the region

Job creation - a shift towards a Circular Economy could create new local job opportunities for industries such as waste collection and separation, repair of damaged or discarded items, composting, and other reuse, repair, and recycling initiatives. New jobs and industries can lead to economic growth and new business opportunities.

Save money - by reducing waste disposal, a Circular Economy approach could save national and local governments money on daily landfill management and, by significantly extending the life of existing landfills, save money (and effort) on constructing new landfills when the current one reaches capacity

Reduced environmental pollution - a Circular Economy approach could reduce an estimated 592 tonnes per day of waste entering the marine and terrestrial environment across the Pacific and Timor-Leste

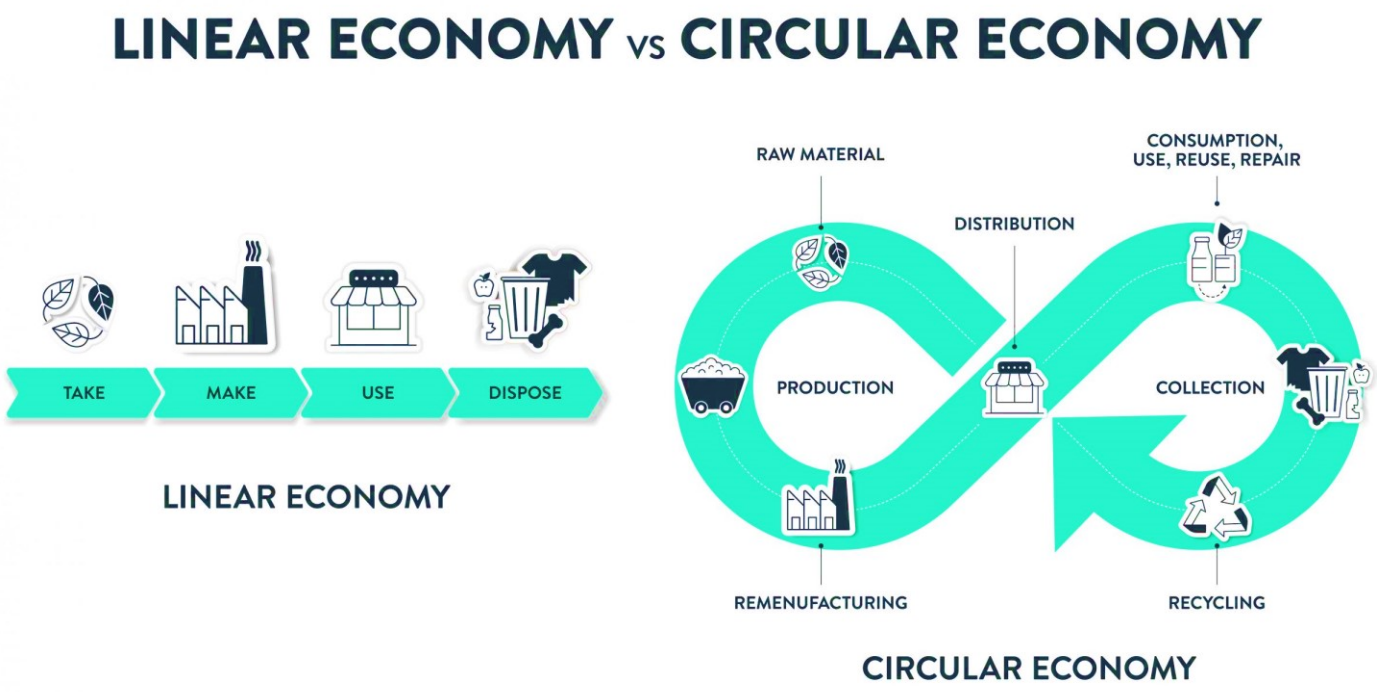
Reduced climate change impacts - a Circular Economy approach seeks to establish closed-loop systems and keep resources in circulation for longer, reducing the need for new resources and therefore reducing climate change effects associated with material extraction, transport, and disposal in landfills or release to the environment where the breakdown contributing to greenhouse gas emissions

Opportunities for the Pacific and Timor-Leste to implement Circular Economy

Opportunities for Pacific Island Countries, Territories, and Timor-Leste to establish Circular Economy principles include the establishment or implementation of:

- Physical infrastructure, facilities, and services
- Policy controls

Physical Infrastructure, Facilities, and Services	Policy Controls
Composting and organics management facilities Manufacture of local alternatives to common waste materials Repair programmes Resource recovery / recycling transfer facilities In-country recycling facilities Service industries	Importation bans Import quality controls Sustainable financing schemes (fee and deposit) Supporting the outcomes of the current development of Internationally Legally Binding Instrument to end Plastic Pollution



Achieving Circular Economy Principles through establishing Physical Infrastructure, Facilities, and Services

1. Composting and Organics Management

Organic materials were once part of a living thing. Organic materials in the Pacific and Timor-Leste include clippings and cut grass from yard/community clean-up projects, fallen palm fronds and flax/tree litter, peelings and scraps from food preparation, animal manure, and paper / cardboard.

Organic materials (including paper / cardboard) comprise 57% of waste to landfill across the Pacific and Timor-Leste[2].

[2] PacWastePlus - Regional Waste Audit Analysis Report - https://pacwasteplus.org/resources/regional-waste-audit-analysis-report/

Organics management facilities can accept organic material and process it into a recycled organic product (such as compost).

Diverting this material from landfill and processing into compost can reduce GHG emission and climate change effects generated by disposal in an “anerobic” landfill environment and is a true example of a Circular Economy approach: households consume items (food), the “waste” from food consumption and growing is converted to compost, compost is used to grow more food, for households to consume.

Compost also provides a local alternative to imported chemical fertilizers for local growers and households.

How to Implement an Organics Management Programme

Organics management does not need to be expensive or use high end technical equipment and can be undertaken in the Pacific and Timor-Leste at any scale – in a backyard, or a large central facility for the whole community or town.

Depending on the scale and input materials available, methods of organics management appropriate in the Pacific and Timor-Leste include: backyard / community composting, bay composting, windrow composting, aerated static pile composting, animal feed, mulch, or anerobic digestion.

Information on each technique is provided in ***Table 1***.

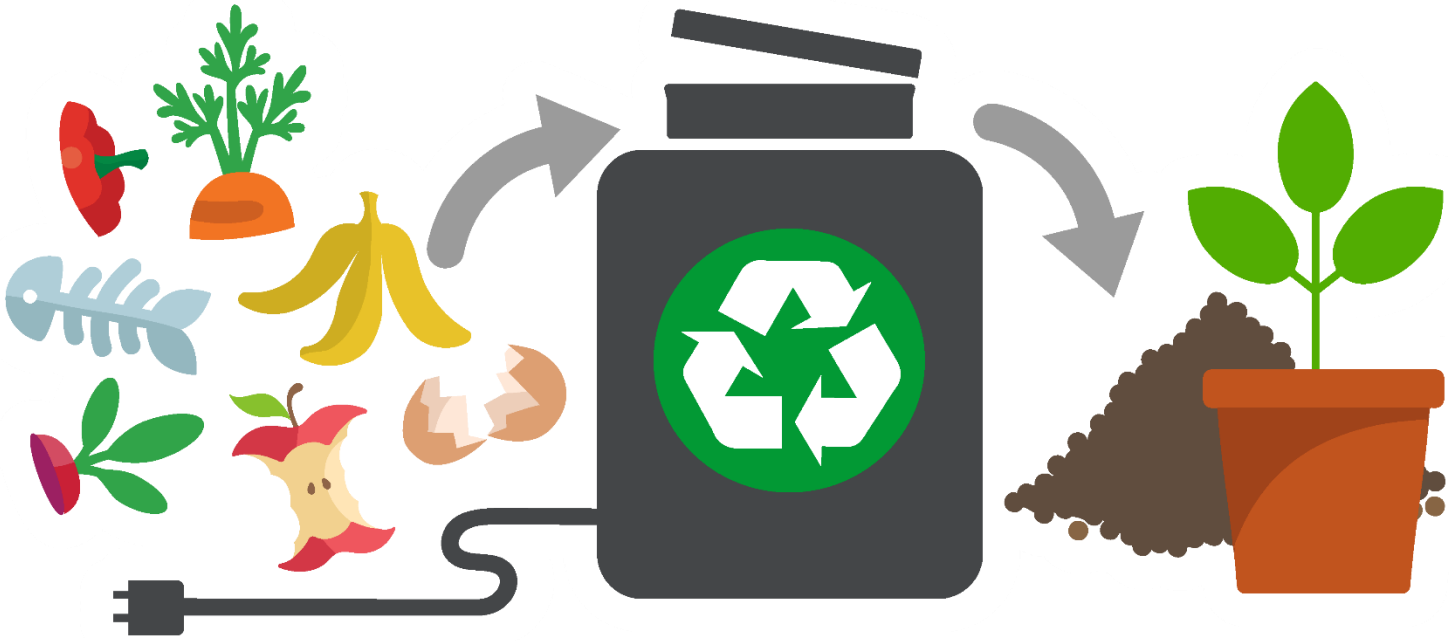


Table 1 Possible Composting and Organics Management Techniques in the Pacific and Timor-Leste

Composting Techniques			
Backyard / Community Compost	**Bay Composting**	**Windrow Composting**	**Aerated Static Pile Composting**
Processing small quantity of organic materials (less than 100 kg or 2 wheelbarrows per week) in small piles or bays at households and communities, turned manually	Processing medium – large quantity of organic materials (more than 1 tonne or 20 wheelbarrows/day) in covered bays, turned with machinery	Processing medium – large quantity of organic materials (more than 1 tonne or 20 wheelbarrows/day) in long piles (windrows), turned with machinery	Processing medium – large quantity of organic materials (more than 1 tonne or 20 wheelbarrows/day) in large piles that are aerated through perforated pipes at the base of the pile
			
Small Scale Composting	Bay Composting Factsheet	Windrow Composting Factsheet	Aerated Static Pile Composting Factsheet
Other Organics Management			
Animal Feed	**Mulch**	**Anerobic Digestion**	
Collecting suitable organic materials (i.e., fresh food organics) and feeding it to animals	Collecting and shredding suitable organic materials (i.e., garden, and woody organics) for use as mulch and / or animal bedding	Controlled decomposition of organic materials in a sealed enclosure that produces biogas and liquid fertiliser	
			
Animal Feed Factsheet	Mulch and Woodchip Factsheet	Small Scale Anaerobic Digestion Factsheet	
Visit the PacWaste Plus Organics Resources pages for further details on these management systems and how to establish an organics management facility.			

Examples of Organics Management Programmes in Operation

There are many examples of organic management programmes in the Pacific and Timor-Leste. A summary is included in ***Table 2***[3].

[3] CPRT Cleaner Pacific 2025 Strategy - https://www.sprep.org/attachments/Publications/WMPC/cleaner-pacific-strategy-imp-plan-2025.pdf

Table 2 Examples of National, State, and Municipal Composting / Organic Management Programmes in the Pacific and Timor-Leste

Country	Location	Facility Name	Country	Location	Facility Name
Cook Islands	Rarotonga	Growers Association and Composting	**PNG**	Lae	Compost Plant
Fiji	Lautoka	Lautoka Market Composting Shed		Mosa	Biogas Plant
	Suva	Suva Market Composting Depot		Kombango	Biogas Plant
	Lambasa	Lambasa Town Council Composting Shed	**Palau**	Koror State	Composting Koror State
	Ba	Ba Town Council Composting Shed	**RMI**	Majuro	Taiwan Technical Mission / NCR Laura Facility
FSM	Yap	Yap Compost Facility	**Samoa**	Tafaigata compound	Jotta Mulching and Green Waste
Kiribati	Betio	Ministry of Agriculture Compost Program	**Timor-Leste**	Tibar	H3R Green Waste Composting
Nauru	Nauru dumpsite	Organics segregation	**Tuvalu**	Funafuti	Funafuti Organics Collection / Taiwanese Horticultural Crop Development Project
Niue	Makato dumpsite	Organics segregation	**Vanuatu**	Luganville	Luganville Market Compost Facility

2. Local Alternatives / Traditional Knowledge

Traditionally in the Pacific and Timor-Leste, consumable items used were made locally from local plants and materials – flax weaving, making cloth from tree bark etc. Similar to organics management, this style of local manufacturing provides a true example of a Circular Economy approach – plants are grown, harvested, and made to product (i.e., woven carry bag) for use by communities, once the item has reached the end of its useful life, it can be processed in a compost system, compost then used to grow more plants.

With global shifts in consumption, Pacific and Timor-Leste communities have moved away from local manufacture and to importing products. Many of the imported products are plastic based and have no or limited options for reuse, repair, or recycling at the end of their useful life.

In today's society, manufacturing local alternatives to achieve the Circular Economy principle can include:

- manufacturing locally grown items into consumable items using traditional knowledge (providing an alternative to imported plastic-based items), or
- re-manufacturing common waste materials (i.e., single-use plastic bags, textile waste, etc) using traditional methods into new products (i.e., woven re-usable shopping bags from plastic or textile "waste").

By supporting the establishment local manufacture of alternatives, governments may support the success of the Circular Economy principle to "design out waste" by establishing closed-loop systems or re-manufacturing to keep resources in use for as long as possible.

Examples of Local Alternatives in Operation:

The examples of local alternatives in the Pacific and Timor-Leste include small groups and businesses establishing initiatives using locally grown or waste materials and making bags or other useful products.

Table 3 Examples of Resource Recovery or Transfer Facilities in the Pacific and Timor-Leste

Country	Company
Cook Islands	Up-cycle Cook Islands
Fiji	Rise Above the Reef
Fiji	Udite Taukei and the Bulikula Women's Community Plastics Group
Solomon Islands	Kawaki Women's Group
Solomon Islands	Osaka Blue Ocean
Vanuatu	Yumi Smat

3. Repair Programmes

Repair Programmes or Centres / Businesses achieve the Circular Economy principle of "right to repair". As the name suggests, these are groups or businesses established to repair or refurbish "waste" items (such as electronic or electrical items, bulky items such as furniture, vehicles, machinery, etc), keeping them in use for longer – ultimately saving consumers money, and reducing the amount of (potentially hazardous) waste needing disposal or management.

Electronic or electrical waste (e-waste) are a particular focus for Repair Programmes. E-waste includes any items with plugs, cords, and electronic components, commonly including computers, mobile phones, whiteware and other home appliances, and children's toys.

In the Pacific and Timor-Leste, e-waste is commonly managed through disposal to landfill or dumped / stockpiled in the environment. These practises can result in toxic substances like lead and mercury leaching into soil and water. Electronic items also contain valuable non-renewable resources including gold, silver, copper, platinum, aluminium, and cobalt.

This means when the items are disposed without recycling, we are throwing away precious materials, resulting in the need for new resources to be extracted.

Examples of Repair Programmes in Operation:

Examples of Repair Programmes in the Pacific and Timor-Leste include small electronic repair private sector businesses.

4. Recycling (Resource Recovery / Transfer Facilities)

Recyclable materials make up 42%[4] of waste to landfill across the Pacific and Timor-Leste and include paper / cardboard, plastic (PET and HDPE), ferrous and non-ferrous metals, glass, and e-waste. Recycling facilities are possible at any scale, but generally are complex facilities with large-scale and expensive infrastructure, commonly found in large countries such as Australia and around Aisa. There are no examples of large-scale recycling facilities in the Pacific or Timor-Leste. Instead, it is common for the Pacific and Timor-Leste to establish Resource Recovery or Transfer Facilities to provide "on-shore processing" – collecting and accumulating recyclable materials, undertake primary processing (cleaning, size reduction, fumigation), and arranging for export of items to overseas recycling facilities. On-shore Resource Recovery or Transfer Facilities assist governments to achieve the "closed-loop systems" Circular Economy principle by enabling items to reach appropriate facilities for recycling.

The Moana Taka Partnership provides assistance for items received and processed at on-shore facilities to be transported to overseas facilities for off-shore processing by providing free container hire and free transport of non-commercial recyclable waste on Swire Shipping vessels to countries with appropriate waste recovery and disposal facilities.

Examples of Resource Recovery / Transfer Facilities in Operation:

Examples of Resource Recovery / Transfer Facilities in operation are included in the following table.

Table 4 Examples of Resource Recovery or Transfer Facilities in the Pacific and Timor-Leste

Country	Location	Facility Name	Waste Stream
Cook Islands	Rarotonga	Resource Recovery Center	Aluminium cans, PET, tin cans, glass
Fiji	Lautoka Municipal Council	Lautoka Recycling Depot	Aluminium cans, PET, tin cans, glass
FSM	Kosrae	Kosrae Island Resource Management Authority	Aluminium cans, PET, glass, ULAB
	Pohnpei	Pohnpei Recycling Center	Aluminium cans
	Yap	Yap Recycling Center	Aluminium cans, PET, glass
Kiribati	Tarawa	Kaoki Maange	Aluminium cans, PET, ULAB
RMI	Majuro	Majuro Atoll Waste Company	Aluminium cans, PET, ULAB
Palau	Koror	Koror State Recycling Center	Aluminium cans, PET, glass, ULAB
Tuvalu	Funafuti	Funafuti Recycling Center	Aluminium cans, PET, glass, ULAB

5. Recycling (In-Country)

Recycling facilities are large-scale and expensive facilities, commonly found in large countries such as Australia and Aisa. However, onshore recycling is possible at a scale suitable for Pacific and Timor-Leste. Recycling Facilities provide ability to recycle or re-manufacture "waste" items (such as paper / cardboard, plastic, metals, glass, and e-waste, etc) into new products.

[4] PacWaste Plus - Regional Waste Audit Analysis Report - https://pacwasteplus.org/resources/regional-waste-audit-analysis-report/

To achieve a "closed-loop system", recycling facilities should enable recycling or re-manufacture of items that can be recycled again and again. For example, by recycling plastic waste into a building product such as floor tiles, once the floor tile breaks or reaches the end of its useful life it can be returned to the recycling facility and be re-manufactured again – keeping the resource in circulation, saving consumers money and reducing need for new resource extraction. **Note**: *not all Recycling Facilities may achieve a Circular Economy "closed-loop systems" principle as some recycling achieves just one second use and after that the item is disposed and the resource is lost.*

Recycling Facilities will also provide for additional employment in the recovery industry, strengthen the economy through local manufacture, and reduce import reliance. Supporting local recycling / re-manufacture may also provide for local innovation and development of small-scale technology.

Examples of Resource In-Country Recycling Facilities in Operation:

Examples of potentially appropriate small-scale technology are provided in the PacWaste Plus Resource - Assessment of Small-Scale Technology Suitable for Waste Management in the Pacific and Timor-Leste.

6. Service Industries

Service Industries established to assist a country to achieve Circular Economy principles by providing a service to enable items to be reused, repaired, or recycled. Industry examples include:

- diaper cleaning – a service to collect, wash, dry, sanitise, and deliver reusable cloth diapers, providing families an easy option to choose to use reusable diapers instead of disposable diapers
- glass washing – a service to collect, wash, sanitise, and reuse glass bottles or containers allowing their reuse and providing an alternative to plastic containers, aluminium cans, or PET bottles
- resource collection services – a service as a substitute to waste collection – collecting and delivery of items able to be reused, repaired, or recycled to the appropriate facilities, providing easy option for communities to ensure their items are recovered in a Circular Economy approach

By supporting the establishment of service industries, governments may support the success of the Circular Economy principle to "design out waste".

Examples of Service Industries in Operation:

The examples of service industries in the Pacific and Timor-Leste include breweries collecting, cleaning, sanitizing, and re-filling glass bottles.

Table 5 Examples of Service Industries in the Pacific and Timor-Leste

Country	Company
Fiji	Paradise Beverage Limited
PNG	South Pacific Lager
Samoa	Taula Breweries
Solomon Islands	Solo Brew
Vanuatu	Tuska Breweries

How to Establish Facilities and Services to Support Circular Economy

Providing physical infrastructure, facilities, and services to support and provide for Circular Economy outcomes – such as establishing Local Alternative Manufacturing, Repair Centres, or Recycling / Transfer Facilities – is undertaken by investing into fit-for-purpose facilities and equipment, and appropriate training.

Facilities are designed by:

1. collecting and analysing data (such as import records and waste audits) to understand the items entering the country
2. undertaking meaningful stakeholder consultation
3. conducting market research to understand scale-appropriate opportunities for the local context.

Depending on the local context, appropriate owners and operators of facilities and industries may be by the private sector (local businesses, entrepreneurs), community groups (women's or youth groups etc), public sector (government), or a combination / partnership (multiagency waste association or Public Private Partnership).

Support by the government for the establishment of facilities or services may include:

- providing incentives or support to businesses, entrepreneurs, or community groups to establish a facility or service
- investment into government-run facilities and equipment
- provision into appropriate training
- implementing policy controls (discussed below) to provide certainty for business investment

Combining infrastructure, facilities, and services with policy controls may provide the investment a greater chance at success, for example:

- Combing Local Alternatives Manufacturing with legislative actions to impose import restrictions on problematic waste entering the country (i.e., single-use-plastic bags – discussed in ***Section 7***) provide opportunities for Local Manufacturing to make alternatives for consumers using Circular Economy-based approach (i.e., women's group establishing initiative to re-using waste material to make shopping bags)
- Combining Repair Programmes with legislative actions to impose quality and repairability restrictions on items entering the country (Import Quality Controls – discussed in Section 8) provide the Repair Programmes a greater chance at success – ensuring the items to be processed are of a quality and able to be repaired or refurbished effectively.
- Combining Recycling Facilities (Resource Recovery / Transfer Facilities or On-shore Re-Manufacturing Facilities) with the implementation of a Fee and Deposit Scheme (discussed in Section 9) provide the resource recovery activities a greater chance at success – by providing a financially sustainable means for collecting, transporting, processing, and exporting the materials.
- Combining Service Industries with import bans (discussed in ***Section 7***) may provide additional support for the success of import bans. For example, if items that will become a problematic waste item are refused entry to the country (i.e., disposable diapers), local service industries established to provide a Circular Economy-based approach may provide an enabling environment for a re-useable product to take the place of that product (i.e., a women's group establishing a local diaper washing service).

Achieving Circular Economy Principles through Policy Controls

7. Importation Bans

Importation Bans, while not a Circular Economy principle in themselves, are a policy driver to encourage the Circular Economy-based approaches through:

- prohibiting items that become a problematic waste item – i.e., those that cannot be reused, repaired, or recycled – from entering the country (and incentivising recoverable, reusable, or recyclable alternatives) provides an effective way to "designing out waste"
- providing an enabling environment for Local Alternative Manufacturing (***Section 2***) to take the place of that product (i.e., a women's group establishing an initiative to re-use waste material and make shopping bags).

Importation Bans are policy controls that restrict the importation of a specific items into a country. They are usually legislative instruments (Act or Regulation) and implemented by customs when approving / inspecting cargo upon arrival.

Items that may be appropriate for importation bans are any items that have:

- no or limited option for reuse, repair, or recycling at the end of their useful life, and
- there are viable alternatives available to replace them (so consumers are not unjustly disadvantaged by not having the product available).

Examples of items potentially appropriate to be managed through importation ban including asbestos, certain pesticides, re-treaded vehicle tyres, and single-use-plastic items (straws, take-away containers, cutlery, plates, plastic bottles, etc).

Examples of Importation Bans in Operation:

Examples of Importation Bans are included in the following table.

Table 6 Examples of Importation Bans in the Pacific and Timor-Leste

Country	Legislation Name
Fiji	*Customs Tariff Act 2009* *Climate Change Bill 2019*
Kiribati	*Customs Act 2019; Schedule 3 (Section 64) – Prohibited items No,17*
Palau	*Plastic Bag Use Reduction Act 2017*
RMI	*Styrofoam cups and plates, and plastic products prohibition, and container deposit Act 2016*
Samoa	*Waste (Plastic Bag) Management Regulations 2018*
Tuvalu	*Waste Management (Prohibition on the Importation of Single-Use Plastic) Regulation 2019*
Vanuatu	*Waste Management Regulations Order No. 15 of 2018 and the Waste Management (Penalty Notice) Regulation Order No. 17 of 2018*

8. Import Quality Controls

Import Quality Controls are policy controls that ensure only appropriate materials and quality products are imported meaning products last longer and can enter a Circular Economy when at the end of their useful lives. Import Quality Controls provide ability to impose certain restrictions (such as quality, age, efficiency standards) on importation of items. They are legislative instruments (Act or Regulation) and implemented by customs when approving / inspecting cargo upon arrival into the country.

Examples of Import Quality Controls may include:

- restricting used vehicles imported to be no more than 10 years old
- restricting vehicles imported to meet efficiency standards
- restricting tyres imported to only include new items – not re-treaded
- restricting whiteware goods (fridges, ovens, etc) imported to meet minimum quality ratings
- restricting disposal nappies/diapers imported to meet compostability standards
- restricting plastic bags imported unless they meet biodegradability or compostability standards

Import Quality Controls are an effective approach for governments to create an enabling environment to achieve the Circular Economy principles of:

- "right to repair", through imposing quality and repairability standards on the whiteware (fridges, ovens, etc) or electronics (laptops etc) entering the country, provides an enabling environment for establishment of repair businesses / centres and used part industries that can assist consumers to repair or refurbish their item and keep them in use for longer – ultimately saving consumers money, and reducing the amount of (potentially hazardous) waste needing disposal or management.
- "design out waste" - setting Import Quality Controls on items provides ability to refusing items to enter the country that may be nearing the end of their useful life, and/or have minimal options to be reused, repaired, or recycled.

Examples of Import Quality Controls in Operation:

Examples of Importation Controls are included in the following table.

Table 7 Examples of Importation Controls in the Pacific and Timor-Leste

Country	Legislation Name
Fiji	*Customs Tariff Act (2009)* and *Customs (Prohibited Imports and Exports) Regulations*
Kiribati	*Customs Act Schedule 3 (Section 64) – Prohibited items No,17*
Samoa	*Customs (Prohibited Import) Amendment Order (No. 2), 2018*
Palau	*Plastic Bag Use Reduction Act 2017*

9. Fee and Deposit Schemes / Sustainable Financing

Fee and Deposit Schemes provide a self-sustainable way for governments to fund recycling and recovery activities and incentive communities to participate in recycling initiatives. Fee and Deposit Schemes assist to achieve the closed-loop Circular Economy principle by providing a financially sustainable means for collecting, transporting, processing, and exporting recyclable items.

Fee and Deposit Schemes have several names, including Advance Recovery Fee and Deposit (ARFD), Product Stewardship Schemes (PSS), Container Return or Container Deposit Schemes, Bottle Return Schemes, or Extended Importer / Producer Responsibility.

Fee and Deposit Schemes impose charges (a "Fee" and "Deposit") on importation of a specific items into a country.

They provide for governments to increase recycling targets, fund recovery activities, and achieve Circular Economy principals, through two elements:

1. an incentive for consumers to recycle (by providing an immediate financial reward (the refund of their "Deposit") when they drop eligible items at a return depot), changing behaviour away from littering, burning, or disposing to landfill
2. a self-sustainable funding source for governments/recyclers to undertake the collection, transport, processing, and export/recycling of recoverable materials (using the "Fee" component which is calculated as the true cost of recycling each eligible item), providing an economically viable ability to undertake recycling activities long term, not reliant on variable government funds.

Fee and Deposit Schemes are usually legislative instruments (Act or Regulation) and can be implemented by customs when approving / inspecting cargo upon arrival into the country or through other regulated arrangement with the producers or importers of target items.

Fee and Deposit Schemes in the Pacific have typically focussed on beverage containers; however, they can provide a sustainable financing method to manage any end-of-life item or packaging for recovery (or for environmental sound disposal of hazardous waste). With the correct analysis and using evidence-based decisions, any "waste" item may be collected and managed through a Fee and Deposit Scheme.

Examples of Fee and Deposit Schemes in Operation:

Examples of Fee and Deposit Schemes are included in the following table.

Table 8 Examples of Fee and Deposit Schemes in the Pacific and Timor-Leste

Country		Legislation Name
FSM	Kosrae	*Recycling Program Regulations* (under *Kosrae Recycling Program Act*) 2006
	Pohnpei	*Recycling Program Regulation* (under Chapter 3, Title 27 of the Pohnpei Code) 2011
	Yap	*Recycling Program Regulations* (under the Yap State Recycling Act (Yap State Law 7—18)) 2007
Kiribati		*Special Fund (Waste Material Recovery) Regulations* (under the *Special Fund (Waste Materials Recovery) Act*) 2004
Palau		*Beverage Container Recycling Regulations*, made (under the Republic of Palau Public Law No. 7-24) 2006
RMI		*Recycling Program Regulations* (under the *Styrofoam Cups, and Plates and Plastic Products Prohibition, and Container Deposit (Amendment) Act)* 2018
Tuvalu		*Waste Management (Levy Deposit) Regulation* (under the *Waste Management Act*) 2019

How to Implement Policy Controls to Support Circular Economy

Implementing Policy Controls to support and provide for Circular Economy outcomes – such as Importation Bans, Import Quality Controls, and Fee and Deposit Schemes – are implemented through the establishment of an Act or Regulation.

Establishment of an Act or Regulation should follow normal government processes, including, but not limited to:

- Gathering data / hosting consultation to understand the need for the Policy Control and determine what you seek for the Policy Control to achieve
- Identifying a political "champion" to lead the proposed Policy Control though government processes
- Identifying key stakeholders and hosting meaningful consultation – who is currently importing / using the item(s) targeted for the Policy Control to apply to, what alternatives exist, establish a "working group" to invite those who may be impacted by a ban to be part of the decision-making process
- research to understand to design a scheme to meet the specific local context
- understanding alternatives and recycling opportunities (export markets and in-country investing in facility establishment
- drafting a policy paper for politicians to review, comment, and approve
- identifying training needs for agencies responsible to enact and enforce a proposed Policy Control
- drafting and enacting identified legislative instruments (and any amendments to existing legislation)

Policy Controls can also be imposed through procurement arrangements. For example, in 2018 Palau issued Executive Order No. 417 under the powers of the Constitution establishing the Zero Disposable Plastic Policy. The Executive Order states "All government offices and agencies shall immediately stop the practice of providing disposable plastics and polystyrene beverage containers…"[5].

Designing Fee and Deposit Schemes is a multifaceted process. ***Figure 3*** illustrates the general process following a logical, manageable 21-Step Pathway.

Several resources are available on the [PacWaste Plus Advanced Recovery Fee and Deposit Resource page].

[5] EIA Gap Analysis 2020 - https://reports.eia-international.org/wp-content/uploads/sites/6/2020/09/Plastic-Prevention-Gap-Analysis-2020.pdf

Figure 1 21-Step Pathway for Design and Implementation of Fee and Deposit Scheme

10. Other Opportunities

Opportunities for Pacific Island Countries, Territories, and Timor-Leste to establish Circular Economy principles include supporting the outcomes of international discussions, such as:

- **International Negotiating Committee** - Supporting the intended outcomes of the current development of an Internationally Legally Binding Instrument to end Plastic Pollution. The Treaty is focusing heavily on de-toxifying plastic materials, and incentivising (and requiring) sustainable and circular design and embedding circularity into plastic systems globally.
- **Liking actions to meet Climate Targets through Circular Economy activities –** For the Pacific to meet their climate targets, or exceed them, the leveraging of Circular Economy to generate local enterprise, and reduce import/export activities can significantly reduce emissions. Full accounting of Circular Economy activities will provide significant benefit to members through increased local industry, increased jobs, reduced emissions, and reduced wastes generated, and reduced environmental impacts

SPREP Projects

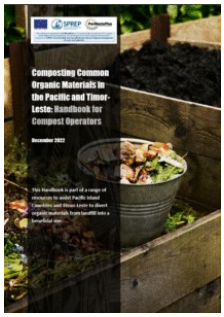
SPREP projects assisting countries to achieve Circular Economy principles include:

- **ISLANDS** – GEF funded project addressing hazardous waste management and providing assistance to Circular Economy systems for e-waste.
- **Pacific Ocean Litter Project** – Australian Government Funded project supporting single use plastic importation bans, and support for traditional materials to provide alternatives to single use plastic.
- **PacWaste Plus** – European Union funded programme assisting countries to improve organics management and generate local and community level circular economies; and working directly with countries to implement National sustainable financing systems to create a Circular Economy for plastics, e-waste, and tyres.
- **SWAP** – AFD funded project supporting design and -implementation of Sustainable Finance "deposit/return" schemes.
- **Moana Take Partnership** – partnership between SPREP and Swire Shipping providing Pacific recyclers free container hire and transport of non-commercial recyclable waste to countries with appropriate waste disposal facilities

Supporting Resources

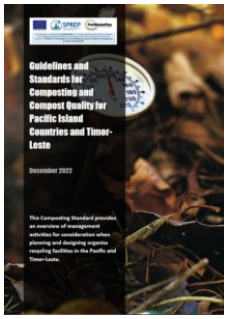
Recourses available to assist the design and implement of Circular Economy principles include:

Organic Management:



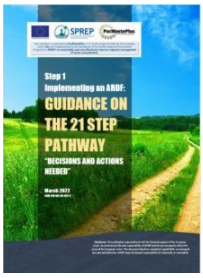
[PacWaste Plus Handbook for Compost Operators: Composting Common Organic Materials in the Pacific and Timor-Leste]

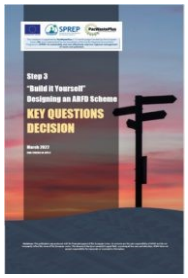
[PacWaste Plus Factsheets: Organic Management Solutions in the Pacific and Timor-Leste]

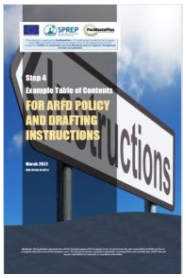


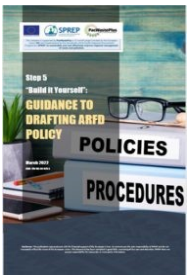
[PacWaste Plus Guidelines and Standards for Composting and Compost Quality for Pacific Island Countries and Timor-Leste]

[Other PacWaste Plus Resources for design and operation of organics management facilities]









Fee and Deposit Schemes:

[PacWaste Plus Resources: Design and Implementation of Advanced Recovery Fee and Deposit Schemes]

Moana Taka Partnership:

[PacWaste Plus Moana Taka Partnership-A Guide for Pacific Island Countries & Territories]

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