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Environment Programme



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A Step-by-Step Guide to Implementation: WASTE LICENSING & ENVIRONMENTAL MONITORING

April 2022



This booklet provides a simple step-by-step guide to help inform policy makers in the Pacific Island countries of the high-level process needed to implement an effective waste licensing legislation supported by appropriate environmental monitoring requirements.

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

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Glossary

Acronym	Description
AAD	Ambient Air Directive
AES	Aggregate Environmental Score
EA	Environmental Authority (Queensland)
EU	European Union
GEDSI	Gender Equity, Disability, and Social Inclusion
SPREP	Secretariat of the Pacific Regional Environment Programme
NEPM	National Environment Protection Measure
NSW EPA	New South Wales Environment Protection Authority
NT	Northern Territory
NSW	New South Wales
PICs	Pacific Island Countries
POEO Act	Protection of the Environment Operations Act
PWP	PacWastePlus Programme
UK	United Kingdom
UN	United Nations
USA	United States of America
WHO	World Health Organisation

About the Waste Licensing and Environmental Monitoring Policy for Pacific Island Countries and Territories Resources

PacWastePlus is working with participating countries to improve waste management via support activities that address data management, education, and awareness, strengthening of legislative frameworks, on-ground actions, and capacity building.

Presently very few Pacific Island countries (PICs) have a policy position, or operative clauses in existing legislation that facilitates the effective licensing and management of waste management activities, and to include and enforce environmental and waste monitoring requirements on businesses and waste service providers.

Participating countries would benefit from support and guidance on the policy requirements, and draft instructions, for the inclusion of waste licensing process, and environmental monitoring standards to be included in environmental / waste legislations.

This series of publications, packaged as a guidance toolkit, is to support country governments in the development of new legislation or the review of existing legislation that facilitates regulation of waste activities, data collection and reporting activities.

Waste Licensing and Environmental Monitoring Policy for Pacific Island Countries and Territories Resource Toolkit



Policy Guidance Report:

The intent of this publication is to develop draft policy and legislative drafting guidance, informed by a literature review, to help participating countries undertake their own respective legislative reform processes.



Template Policy:

This template policy is to support country governments in the development of new legislation or the review of existing legislation that facilitates regulation of waste activities, data collection and reporting activities.



A Step-by-Step Guide to Implementation:

A simple step-by-step guide to help inform policy makers of the high-level process needed to implement an effective waste licensing legislation supported by appropriate environmental monitoring requirements.

PacWastePlus Programme

The Pacific – European Union (EU) Waste Management Programme, PacWastePlus, 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 PacWastePlus

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 PacWastePlus programme will generate 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 PacWastePlus 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 PacWastePlus programme by visiting



<https://pacwasteplus.org/>

Summary

This booklet provides a simple step-by-step guide to help inform policy makers of the high-level process needed to implement an effective waste licensing legislation supported by appropriate environmental monitoring requirements. The intent of this booklet is to provide policy makers within each of the Pacific Island countries with guidance material to support the development of legislative instruments that are bespoke and applicable to the specific country.

The following sections have been set out to describe the key components needed to establish a waste licensing framework, supported by environmental monitoring requirements and a framework to monitor, and track performance via data collection and reporting.

Managing Waste and Why Supporting Legislative Instruments are Needed

The global waste market is changing at a rapid pace with many products (including product packaging) imported into Pacific Island countries where there is limited technology and facilities to collect, separate, process and sustainably dispose of material.

This trend is occurring throughout the world however there is growing recognition that the traditional method of take-make-dispose (linear economy) now needs to shift rapidly to a make-use-return economy (circular economy) to minimise and where possible eliminate the effects of unchecked and unregulated disposal of waste disposal and the effects on communities and the environment (Figure 1).

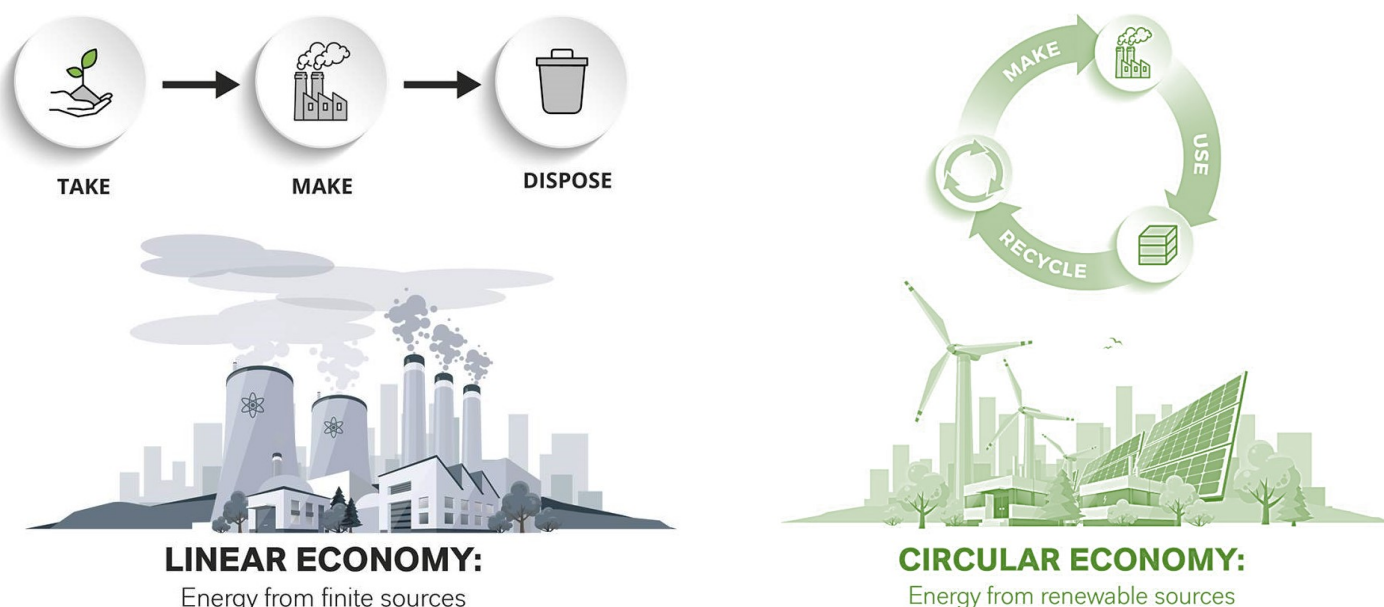


Figure 1: Description of linear versus circular economies¹

¹ <https://www.mfe.govt.nz/waste/we-all-have-role-play/responsible-product-management/about-product-stewardship>

Supporting the transition to a more circular economy are the principles of the waste hierarchy (Figure 2) of reduce-reuse-recycle-recover-disposal, with reduction the most favourable and disposal the least favourable option. Integration of these principles into the establishment of an effective waste licensing legislation will add another lens to assist Island nations to reduce the amount of waste produced and regenerate natural ecosystems (Figure 3).



Figure 2: The waste hierarchy – reduce, reuse, recycle, recover, dispose²



Figure 3: Design out waste and pollution. Keep products and materials in use. Regenerate natural systems³

A key factor to a shift in how we manage our waste is driven by the impact climate change is having on our communities, environment, financial institutions, and cultures. While the causes of climate change cannot be attribute to one issue, it is acknowledged that individual consumption habits and the resultant disposal of vast quantities of waste is a contributing factor.

² https://www.sprep.org/solid_waste/documents/WasteStrategyTemplate.pdf
³ The Ellen MacArthur Foundation

It is also acknowledged that the negative impacts of climate change occurring across the Pacific Islands (e.g., increasing sea level rise displacing communities) can be in part attributed to developed countries economic activities having a cumulative effect through for example, the importation of products into the Pacific Islands without clear responsibility to manage the product (e.g., packaging, end-of-life products, waste from tourism activities) through its entire life-cycle (i.e., manufacture, purchase, disposal, reuse/repurpose).

Without this responsibility in place, Pacific Island nations are left to manage the vast amounts of waste with minimal infrastructure and funding to provide mechanisms to sustainably manage waste streams. However, for Pacific Island countries to transition to an economy where products are more commonly used and returned will take time and will need to be supported by a range of factors, including but not limited to:

- developing convenient and culturally appropriate methods to collect waste materials
- the establishment of reprocessing facilities and infrastructure
- access to offshore end-markets

Alongside these factors will be the need for a range of market players including industries, manufacturers, importers, tourism sector to take greater responsibility for the products imported and disposed of within each of the Pacific Island countries. Mechanisms may include regulatory requirements to ‘take-back’ and sustainably manage material end-of-life and/or be required to manage materials through a scheme such as an Advanced Recovery Fee.

The underpinning aspect to support the above will be the establishment of a waste licensing framework and bespoke country legislative instruments that empower Pacific Island countries to effectively manage the flow of waste to mitigate the impacts on communities and the environment. Within the licensing framework will be country specific requirements to monitor environmental impacts by monitoring and tracking performance of waste management facilities via data collection and reporting requirements. Establishing bespoke country specific legislative instruments will acknowledge the individual in-country characteristics and challenges including but not limited to, Gender Equity, Disability, and Social Inclusion (GEDSI) issues, access to waste management facilities and the community’s cultural connection with the environment, and human health and wellbeing. Further, the long-term application and integration of a waste licensing framework and bespoke country legislative instruments will be to support efforts towards sustainable development in member countries. To help achieve this, the waste licensing framework discussed in the following sections has been developed with the 17 United Nations Sustainable Development Goals as illustrated in Figure 4 as underpinning development goals.



Figure 4: United Nations sustainable development goals



The following sections set out a simple step-by-step guide to help inform policy makers of the high-level process needed to implement an effective waste licensing legislation supported by appropriate environmental monitoring requirements.

Establishing Waste Facility Licensing and Conditions

There are several economic, social, and environmental considerations that should be considered when determining the waste facility licensing and regulatory framework for each Pacific Island country. These have been considered under several option scenarios, including:

1. **Option 1** – Maintain the status quo
2. **Option 2** – Adopt a licensing framework based on activity type, waste type and/or throughput or a combination of each. This option refers to implementing a licensing framework like environmental licenses utilised in Australia and Europe. Under this option, sites have one singular license covering multiple functions. The Fijian approach with operators required to obtain solid waste and liquid waste permits aligns more closely with this option.
3. **Option 3** – Adopt a permitting framework based on emissions. This option refers to implementing a permit-based framework like that utilised in the USA where multiple permits are required for the emissions relevant to the activity being regulated.

Option 1 – Maintaining the status quo

Under this option Pacific Island countries would not change their existing regulatory frameworks. Existing frameworks would continue, and those countries without licensing or permitting frameworks would not change. This option presents no immediate impact to existing stakeholders. There would be no change to approval requirements, existing permit fees or the level of administration required. Environmental and social risks would be maintained.

Option 2 – Implement an environmental licensing framework

Option 2 proposes that Pacific Island countries implement a new or adapt existing frameworks to allow for a holistic environmental licensing framework to be developed. The implementation of such an approach would generally result in potentially direct or indirect impacts to existing facility operators, local government (e.g., councils), waste generators and the community, and may include changes to:

- The type of activity or facility required to be regulated
- Fees paid by facility operators
- The number of activities and approvals administered by member country governments in assessment and regulatory roles
- Associated revenue generated by member country governments through collection of licensing fees
- The cost to waste generators from needs to classify and characterise waste, or increased fees for waste disposal.

Depending on how this option is implemented, some activities that are not currently captured, or where no activities are regulated, may result in a license.

Further, costs to each member country from implementation of **Option 2** are most likely to be incurred through:

- Developing new legislation (or amending existing) and undertaking consultation with local government, industry, and other stakeholders
- Implementing new governance structures (e.g., setting up an EPA function or a regulatory / compliance function within an existing agency, staffing, undertaking investigations, data management)
- The upskilling or new training of staff to understand new framework.
- The provision of support to waste industry or other applicants associated with licensing applications and post issue support.
- Transitional time for existing permitted industries to a new framework, or time to allow for a new framework to be established and fully operational.
- Additional regulatory inspections associated with enforcement activities under a new framework.
- Potential legal costs associated with implementation.

Waste Activity Operators

Member countries may choose to regulate private industry solely, or, as in other jurisdictions, apply regulations to government run facilities that undertake the same activity.

Potential impact to existing activity undertakers, including existing license or permit holders may include:

- The requirement to provide an annual fee to support a license which may be based on risk, quantity, waste type or activity type will increase operational costs.
- Conditions associated with licenses may require facility upgrades over a certain period (e.g., a requirement could include existing landfills need to be lined within 5-years, or to upgrade monitoring networks) – these may require capital upgrades
- The closure of unregulated or poorly constructed sites may result in clean-up or remediation costs
- The need to apply for new licenses at sites resulting in delays or prohibited operations
- Changes to the nature of waste or volume accepted at a site
- Changes or the introduction of the need to undertake routine monitoring to align with license conditions, including potential costs for sampling, laboratory analysis, monitoring equipment, reporting and data management.
- Potential costs associated with managing requirements from regulators to investigate and clean-up pollution incidents or non-compliances.
- Costs associated with raising financial assurances or bonds including interest where loans are required.
- Increases in illegal dumping by private industry to avoid higher disposal or other management fees
- A clear regulatory framework provides certainty to investors.

Country Governments (or delegated authorities)

Member countries will need to incorporate a form of governance arrangement to administer and regulate under **Option 2**. The potential impacts to country governments may include:

- For government managed/operated waste sites a potential increase in cost and regulatory burden to manage own facilities.
- Increased revenue from licensing costs
- Increased administration burden from managing and maintaining licenses
- Increased need for electronic systems to manage licenses, data and other information relating to an activity in a manner that maintains data security but can be used for enforcement (legal) activities as required.
- Increased staffing requirements to administer licenses
- Increased staffing requirements to undertake compliance and enforcement activities
- If following a risk-based approach, the assessment and regulatory function will need access to technical specialists to quantify/qualify risk considerations
- There is likely to be a need to develop supporting guidance documentation around a licensing framework which may include:
 - Rules around exemptions, thresholds, and application of the implemented framework
 - Processes to characterise different waste types
 - Clarity around the definition of waste (if needed), particularly as recycling becomes more prevalent
 - Interactions with other regulatory frameworks
 - Guidance on standards for waste facilities (e.g., minimum standards for landfills)
 - Where financial assurance or bonds are applied, a clear and transparent process for banking said assurances and mechanism for return at surrender of license.
- The ability to update or reform regulatory frameworks based on new science (e.g., for issues such as emerging contaminants) or new activities (e.g., a growth in biogas technology in the region).
- Potential for increased illegal dumping to the environment if private facilities have to increase gate fees to reconcile increased regulatory burden. This could lead to increased financial burden on councils or governments to undertake clean up, investigation or surveillance programs, or increase the need for illegal dumping education programs.
- Consideration of legacy clean-up costs for old landfill sites including closure, rehabilitation and surrender of license or return to the community.

Community

- Increased community confidence in an appropriate level of environmental protection in managing environmental risks from waste activities
- Requirement for currently unregulated (in some cases) activities to be appropriately managed
- New costs associated with regulation are passed down to residents through higher gate fees or rates
- New costs associated with requirements to provide specific waste containers for households
- The increased regulation of sites and potential closure of higher risk sites may mean households without access to collections have to travel further to lawfully dispose of their wastes. This could result in:
 - A loss of amenity value for residents (i.e., loss of access to a waste facility)
 - An increase in illegal dumping
- Regulation or banning of (for example) un-controlled burning of wastes may improve health outcomes
- The following table summarises the potential requirements for country specific governments (or delegated authorities), industry (i.e., waste activity operators) and the community.

Table 1: High-level cost and benefit summary (Option 2)

Option 2: Adopt a new licensing framework for waste activities		
Stakeholder	Benefits	Costs
Government	<ul style="list-style-type: none"> Increased revenue to fund regulatory and compliance activities from fees Provision of environmental bonds to manage risk of clean-up activities cost deferring to state Flexibility to react to new science or technologies by amending legislation. Clear and transparent framework allows for investment. Increased certainty of protection of human health and the environment. Control over emissions from polluting activities. Reduction or removal of non-regulated sites. 	<ul style="list-style-type: none"> Introduction of new legislation, and regulatory framework and overarching governance requires funding to deliver including new staff and data management technology. Existing staff require training to apply new framework. In-country government needs to be willing to support new framework. Access to technical expertise needed. New processes, information, guidelines, and subordinate legislation required to implement. Likely adaptive over time. Increase in regulation may require more enforcement activities and clean-up costs due to increase in illegal dumping etc.,
Waste Activity Operators	<ul style="list-style-type: none"> Opportunity for good operators with engineered facilities to continue operating and increase market share. Clearer regulation and standards for new and emerging technologies may lead to new investment. Fairer playing field so all facilities meet a minimum standard. Increased confidence in Country Governments ability to maintain environmental law and management. Regulation of some unregulated activities. 	<ul style="list-style-type: none"> Costs and fees associated with licensing Costs associated with site improvements (if retrospective), new monitoring and reporting obligations. Costs associated with financial assurances and interest on loans. Increased administrative burden for site operators. Education and training required to support roll out of new framework for site operators. May lead to illegal activity (waste crime) with illegal dumping or mischaracterisation of wastes to meet purpose.
Community	<ul style="list-style-type: none"> Increased confidence that environmental protection is being provided. Closure of nuisance sites. Cessation of activities harmful to health (e.g., incineration without abatement) 	<ul style="list-style-type: none"> Potential increase in illegal dumping to avoid higher dumping costs Flow through of costs to rate payers to cover increased cost of regulation, licensing etc.,

Option 3 – Introduction of a permitting system

This option is commonly used in the US jurisdictions such as Hawaii. Under this approach, where an entity wishes to run a waste activity, they must apply for a permit. In the example of Hawaii, this requires a request for permit to multiple areas within the Department of Health to obtain permits for, for example, solid waste management, air quality emissions, water emissions.

A significant number of the potential impacts associated with this approach are the same as for Option 2 and need to be considered in a country specific context.

Costs to each Pacific Island country from implementation of Option 3 are most likely to be incurred through:

- Developing new legislation (or amending existing) and undertaking consultation with local government, industry, and other stakeholders
- Implementing new governance structures (e.g., setting up individual technical agencies (e.g., air, water, waste as a minimum) within the regulator, setting up an EPA function to manage multiple permits, individual technical teams to administer each different permit
- The upskilling or new training of staff to understand new framework
- The provision of support to waste industry or other applicants associated with permit applications and post issue support from each agency
- Transitional time for existing industries to a new framework, to apply for permits, or time to allow for a new framework to be established and fully operational
- Additional regulatory inspections associated with enforcement activities under a new framework across multiple disciplines
- Potential legal costs associated with implementation

Potential impact to existing activity undertakers, including existing license or permit holders may include:

- The requirement to provide multiple fees for permits across each emissions discipline.
- Conditions associated with permits may require facility upgrades over a certain period of time (e.g., a requirement could include a need to upgrade air emission control systems which may not be possible for several years).
- The closure of unregulated or poorly constructed sites may result in clean up or remediation costs.
- The need to apply for new permits at sites resulting in delays or prohibited operations; permits may be staggered, or some may be issued ahead.
- Changes to the nature of waste or volume accepted at a site result in confusion or incorrect material being deposited.
- Changes or the introduction of the need to undertake routine monitoring to align with license conditions, including potential costs for sampling, laboratory analysis, monitoring equipment, reporting and data management.
- Potential costs associated with managing requirements from regulators to investigate and clean-up pollution incidents or non-compliances.
- Costs associated with raising financial assurances or bonds including interest where loans are required.
- Increases in illegal dumping by private industry to avoid higher disposal or other management fees.
- A clear regulatory framework provides certainty to investors.

Country Governments (or delegated authorities)

Member countries will need to incorporate a form of governance arrangement to administer and regulate under **Option 3**. The potential impacts to country governments may include:

- For government managed/operated waste sites a potential increase in cost and regulatory burden to manage own facilities.
- Increased revenue from permit costs however often permit costs are less than other licensing approaches.
- Increased administration burden from managing and maintaining multiple permits.
- Increased need to provide electronic systems to manage permits, data and other information relating to an activity in a manner that maintains data security but can be used for enforcement (legal) activities as required.
- Increased staffing requirements to administer permits.
- Increased staffing requirements to undertake compliance and enforcement activities.
- Each assessment and regulatory function will need access to technical specialists to quantify/qualify risk considerations.
- There is likely to be a need to develop supporting guidance documentation around a permit framework which may include:
 - Standardised permit rules (e.g., common water quality discharge parameters).
 - Rules around exemptions, thresholds, and application of the implemented framework.
 - Processes to characterise different waste types.
 - Clarity around the definition of waste (if needed), particularly as recycling becomes more prevalent.
 - Interactions with other regulatory frameworks.
 - Guidance on standards for waste facilities (e.g., minimum standards for landfills).
- Where financial assurance or bonds are applied, a clear and transparent process for banking said assurances and mechanism for return at surrender of license.
- The ability to update or reform standard permit requirements based on new science (e.g., for issues such as emerging contaminants) or new activities (e.g., a growth in biogas technology in the region).
- Potential for increased illegal dumping to the environment if private facilities have to increase gate fees to reconcile increased regulatory burden.
- Consideration of legacy clean-up costs for old landfill sites including closure, rehabilitation and surrender of license or return to the community.

Community

- Increased community confidence in an appropriate level of environmental protection in managing environmental risks from waste activities.
- Requirement for currently unregulated (in some cases) activities to be appropriately managed.
- New costs associated with regulation are passed down to residents through higher gate fees or rates.
- The increased regulation of sites and potential closure of higher risk sites may mean households without access to collections have to travel further to lawfully dispose of their wastes. This could result in:
 - A loss of amenity value for residents (i.e., loss of access to a waste facility).
 - An increase in illegal dumping.
- Regulation or banning of (for example) incineration of wastes may improve health outcomes.

The following table summarises the potential requirements for country specific governments (or delegated authorities), industry (i.e., waste activity operators) and the community.

Table 2: High-level cost and benefit summary (Option 3)

Option 3: Adopt a permitting approach for waste activities		
Stakeholder	Benefits	Costs
Government	<ul style="list-style-type: none"> Increased revenue to fund regulatory and compliance activities from permit fees Flexibility to react to new science or technologies by amending legislation. Clear and transparent framework allows for investment. Increased certainty of protection of human health and the environment. Control over emissions from polluting activities specific to site. Reduction or removal of non-regulated sites. 	<ul style="list-style-type: none"> Introduction of new legislation, and regulatory framework and overarching governance requires funding to deliver including new staff and data management technology. Existing staff require training to apply new framework across multiple disciplines In-country government needs to be willing to support new framework. Access to technical expertise needed. New processes, standard permitting guidance, water quality discharges etc. Increase in regulation may require more enforcement activities and clean-up costs due to increase in illegal dumping etc.,
Waste Activity Operators	<ul style="list-style-type: none"> Opportunity for good operators with engineered facilities to continue operating and increase market share. Clearer regulation and standards for new and emerging technologies may lead to new investment. Fairer playing field so all facilities meet a minimum standard. Increased confidence in Country Governments ability to maintain environmental law and management. Regulation of some unregulated activities. 	<ul style="list-style-type: none"> Costs and fees associated with licensing Costs associated with site improvements (if retrospective), new monitoring and reporting obligations. Costs associated with financial assurances and interest on loans. Increased administrative burden for site operators. Education and training required to support roll out of new framework for site operators. May lead to illegal activity (waste crime) with illegal dumping or mischaracterisation of wastes to meet purpose.
Community	<ul style="list-style-type: none"> Increased confidence that environmental protection is being provided. Closure of nuisance sites. Cessation of activities harmful to health (e.g., incineration without abatement) 	<ul style="list-style-type: none"> Potential increase in illegal dumping to avoid higher dumping costs Flow through of costs to rate payers to cover increased cost of regulation, licensing etc.,

Additional Licensing and Permitting Considerations

Each Pacific Island country will need to consider an appropriate approach that is bespoke to the specific in-country requirements. It is likely that a hybrid approach of activity, waste type and volume would be most appropriate for the majority of Pacific Islands, and whilst activities and waste types may be reasonable uniform, details around volumes will vary significantly.

The additional licensing and permitting considerations include:

Financial assurance or bonds

- Financial assurance is commonly used across the world to ensure there are sufficient funds available to close, decommission and rehabilitate sites should the site operator not be able to meet this obligation, or to cover the cost of clean-up of accidental spills and leaks, or both. These may form part of a license, however, could also be managed outside of a licensing or permitting framework. Methods will need to be developed to ensure an accurate forecasting of cost can be made, and updated, and mechanisms put in place to ensure the banking of the bond is clear and transparent aligned with country standards. There may be challenges for existing industry to meet the demands of financial assurance requirements, particularly for established projects.

Supporting documents

- Introducing a new, or updating an existing, environmental licensing framework is likely to have significant need for post-legislation document development. Legislation by its very nature is not sufficiently detailed to cover every permutation, and operators and regulators will need to shape operational guidance and update subordinate legislation to align with the overall objectives of legislation. This will require staffing as well as sufficient in-house technical support, or the ability to purchase that expertise from contractors. On this basis, legislation should be introduced to stakeholders as evolving.

Extension to existing licensing or permitting frameworks

- Where a country intends to modify an existing arrangement, consideration of the changes compared to the existing situation should be considered in a regulatory impact statement. Timeframes may vary when compared to starting from scratch, and there may be a need to engage more with industry stakeholders as amendments may affect their own business operability. The focus of the implementation of a new framework should be around improvement and evolution of existing, rather than looking to fully shut down operating industry.

Application to waste transporters

- Licensing frameworks in most jurisdictions require the tracking and management of the transportation of hazardous wastes. This is typically applied in a waste licensing context, with either the entity undertaking the transporting requiring a license or permit, or each individual vehicle. Additional obligations exist for spill protection measures, and typically operators of vehicles are required to have additional training. For more general waste transport, it is uncommon for waste transporters to require licensing, however in some jurisdictions all waste transactions (i.e., transfer of waste from source site to a transporter) are required to be recorded, not just for hazardous wastes.

Application of licensing framework to public facilities

- Licensing or permitting frameworks are well suited to a range of private sector industries including those outside the traditional waste sites such as timber mills, mines and petroleum projects, and agriculture. In some jurisdictions these frameworks also apply to public sector owned assets. Consideration should be given in each country as to the costs and benefits of applying only to the private sector. Whilst there may be a need only to regulate the private sector, introduction of a multi-level licensing framework where the same landfill site is regulated differently between public and private operators leads to an uneven playing field and may create perverse outcomes around landfill standards, competition, and pricing.

Application of a licensing framework more broadly

- Sites such as timber mills, the resources industry etc., often have the same licensing requirements and as such, should be included in policy framework development.

Data Collection and Reporting Framework

Legislative and policy options to support national data collection and reporting obligations can be supported by the implementation of a licensing or permitting framework that requires licensees to provide data. This would need to be considered in collaboration with the policy options.

At a national level, Pacific Island country governments may want to introduce legislation to drive the reporting of waste data that allows a comprehensive return of information to allow for reporting under international conventions and to implement country waste and recycling progress reporting. The policy options at the highest level would be to do nothing or to implement a form of policy. It would be envisaged that legislative requirements could be introduced separately or aligned with a licensing or permitting framework.

- **Option 1** – Do nothing
- **Option 2** – Introduce standalone data collection legislation
- **Option 3** – Introduce integrated data collection requirements into legislation linked to licensing/permitting

The potential costs and benefits of **Option 1** are like those described in the earlier table.

The potential costs and benefits for **Option 2** and **3** are largely similar at a regional scale, and further analysis is likely to be necessary at a country scale, but may include:

- The cost of introducing, legislating, and developing operational standards for reporting of data requirements
- The integration of legislation with other requirements
- The willingness of operators to provide data including that which might be considered commercial in confidence
- Training and awareness raising for data preparation and submission, including timeframes, submission tools, quality assurance testing etc.,
- The ability of operators to collect data (e.g., presence of weighbridges or other means of measuring quantity of waste including deeming) and cost of installing such systems
- The cost associated with creating a system (whether excel or IT system based) to capture, validate, quality check and analyse data provided.
- The cost associated with meeting relevant reporting obligations (i.e., staff to do the tasks above)
- The cost and addition research required to incorporate reporting elements for other product stewardship schemes (e.g., container deposit schemes etc.,)
- The creation of roles or potential governance structures to support waste data calculations.

If considering developing standalone legislation to drive data collection purposes, member countries may find it more challenging than co-development with a licensing framework. It may be more difficult to introduce a change without licensing a specific facility and there may be a greater resistance or reluctance to provide accurate data.

Legislation may need to consider fines or other penalties in relation to non or false provision of data (as there would be in a licensing framework) however in other jurisdictions this has often been difficult to prosecute against, with an educational approach preferred with non-compliant operators.

Looking Ahead and Next Steps

Facility Licensing and Governance Framework

Recommended Policy Option

Recommending a singular regulatory framework across Pacific Island countries is challenging. There are different legal frameworks in place which may make it easier to take up one option than others, and countries are in different stages of development for how they regulate waste activities. This means the establishment of a license or permitting framework is reliant on the legal framework in which the country operates. It is recommended that a licensing approach provides a more cohesive and less administratively burdened approach as licenses are managed through a central point. Legislation for activity licensing should introduce:

- The identification of which facility types will be regulated.
- Volume and type-based limits on the waste accepted into a facility (e.g., a landfill which accepts >200 tonnes per annum might need a license; or a facility that processes any volume of hazardous waste may require a license).
- Provisions for introduction of an annual fee based on volume/risk/type.
- Minimum environmental standards for air quality, odour, noise, water, land discharges and mechanisms to report against these standards.
- The development of complementary standards or guidelines that explain to operators what is expected of them in complying with license conditions (these could be developed across the region).
- Timeframes for assessment of new license or permit applications.
- Vehicle or operator licensing for the transport of hazardous wastes.
- The introduction of penalties or fines for infringements.

Recommended Implementation Plan

For Pacific Island countries without an established licensing or permitting framework, changes should be methodical and allow sufficient points of engagement (see below). Implementation should include:

- Initial consultation(s) with stakeholders including industry to understand and refine knowledge of policy gaps and develop objectives for the policy.
- Research into a refined policy framework to achieve the goals of the policy reform for the individual country.
- The time required to draft policy papers, legislation, and subordinate legislation.
- Time required to undertake consultation with key stakeholders (e.g., industry, local government, environmental groups, other government departments).
- The time required to raise awareness and educate existing operators and government officials of impending changes, including training of enforcement agents which may include police, customs and port officers, lawyers, and members of the judicial system.
- The timeframe from when new legislation goes live to when prosecutions may be enabled (i.e., a soft launch could be considered with compliance needs but no enforcement for a set period).
- The time needed to develop supporting information (e.g., guidelines, standards) or to develop rules for exemptions.
- A transition period, or if legislation is applied retrospectively, a time period within which existing facilities may reasonably be expected to improve facilities to meet new standards and license or permit conditions.

Stakeholder Engagement

Stakeholder engagement planning should be undertaken as an early task item for member countries. Stakeholder engagement specific to implementing a new, or making amendments to existing licensing or permitting frameworks should include:

- Inter and intra government agency consultation – to fully understand policy impact as it relates to the whole of government, including but not limited to legal frameworks, legislation held within other acts, obligations on other agencies to provide data/support.
- Local Government (if present) – understand impact of policy on their operations (e.g., council/local government run facilities), costs and activities undertaken.
- Waste industry – understand willingness to pay/be regulated, test charges, reporting and monitoring requirements, ability to implement improvements to existing facilities or build new ones; concerns regarding compliance; training needs for industry staff.
- General industry – consultation around potential increases in waste management costs or for sites which undertake waste activities, coordination with other regulations.
- General public – none unless specifically identified during implementation planning.

Data Collection and Governance Framework

Recommended Policy Option

Legislation relating to governance is more challenging to recommend, predominantly because of the different legal frameworks within the Pacific Island countries. Each country needs to identify the most appropriate agency to establish a more comprehensive regulatory function in.

This could be within existing agencies, or in a new agency such as an EPA. This will require comprehensive review of existing regulatory functions and implementation will be varied. The key functions to introduce will be:

- The establishment of a compliance/regulatory function that has the head of power to undertake legally enforceable investigations, and direct licensees or permit holders to undertake remediation or rehabilitation exercises.
- The establishment of a function to lawfully hold financial assurances.
- The establishment of a data and report holding repository and reporting against Country and International obligations.
- The training and upskilling/recruitment of staff to undertake assessment, enforcement, or compliance activities.

Recommended Implementation Plan

Implementation for a data, reporting and governance structure may include:

- Detailed review of existing governance structures, legislative framework, and agency responsibilities in overseeing waste regulation functions in each member country.
- Consultation within country government to understand appetite for change of function and necessary legislative amendments required.
- Research and design of proposed structures, reporting and data housing functions.
- Research and design of compliance and enforcement powers.
- Undertaking of stakeholder engagement around interactions with the function, design of management system interfaces, fees and charges.
- The development of draft policy papers, legislation and subordinate legislation giving a head of power to the regulatory function.
- The appointment of a head of regulatory function and supporting staffing (as required).
- Awareness raising and education of existing staff or those staff recruited or transitioning into new roles within the regulatory function.
- Awareness raising and education of key stakeholders who will interact with the new regulatory function in how to complete forms, applications, and data submissions.
- The establishment and commissioning of the new regulatory function.
- The development of supporting documents, management systems and decision support tools.

Stakeholder Engagement

Stakeholder engagement planning should be undertaken as an early task item for member countries. Stakeholder engagement specific to implementing new data submission, governance and reporting requirements is anticipated to require engagement as follows:

- Inter and intra government agency consultation – significant engagement will be required within the member country government as introduction of new governance arrangements will need coordination, especially where some functions are already delivered through other agencies (e.g., Department of Health or Department of Environment). Reporting and data provision requirements may also require government agencies to provide information. Provisions will also be required for upskilling existing staff or recruiting new, plus forming leadership arrangements.
- Local Government (if present) – understand impact of reporting requirements on their operations.
- Waste industry – understand reporting requirements, ability to report, cost to businesses of reporting, may have concerns regarding new administrative burden in annual reporting.
- General industry – understand reporting requirements, ability to report, cost to businesses of reporting may have concerns regarding new administrative burden in annual reporting.
- General public – none unless specifically identified during implementation planning.

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