



Assessment of Legislative Frameworks Governing Waste Management in Papua New Guinea

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Table of Contents

ABOUT THIS REPORT	4
INTRODUCTION	5
LEGISLATIVE SUMMARY	7
<i>Legislation impacting waste governance</i>	7
PIPELINE ACTIVITIES	12
STOCKTAKE OF RELEVANT MULTILATERAL ENVIRONMENTAL AGREEMENTS	13
LEGISLATIVE FRAMEWORK ASSESSMENT	15
METHODOLOGY	15
<i>Approach and Criteria</i>	15
<i>Overview of the legal system</i>	16
LEGISLATIVE ASSESSMENT	17
<i>Relevance</i>	17
<i>Coherence</i>	19
<i>Effectiveness</i>	20
<i>Efficiency</i>	21
<i>Impact</i>	22
METHODOLOGY	24
<i>Approach and Elements</i>	24
CAPACITY ASSESSMENT	25
<i>Drafting</i>	25
<i>Enactment</i>	27
<i>Implementation</i>	28
<i>Compliance and enforcement capacity</i>	29
<i>MEA reporting</i>	31
LEGISLATIVE MODELS FOR WASTE GOVERNANCE	34
<i>Trends in waste governance across the participating countries</i>	34
<i>Key recommendations to increase national legislative and institutional capacity</i>	35
ANNEX 1: GLOSSARY OF LEGAL TERMS	38
ANNEX 2: ACRONYMS	40
ANNEX 3: PRIORITY WASTE DEFINITIONS	41
ANNEX 4: EXISTING LEGISLATION ADDRESSING WASTE MANAGEMENT	42
ANNEX 5: MEA REPORTING	47
ANNEX 6: MODELS AND CONCEPTS FOR WASTE MANAGEMENT	51

List of Tables

TABLE 1: LEGISLATION IMPACTING WASTE GOVERNANCE IN PAPUA NEW GUINEA	8
TABLE 2: POLICIES AND REPORTS IMPACTING WASTE GOVERNANCE IN PAPUA NEW GUINEA	10
TABLE 3: GOVERNMENT DEPARTMENTS WITH WASTE RESPONSIBILITIES IN PAPUA NEW GUINEA.....	11
TABLE 4: PIPELINE ACTIVITIES FOR PAPUA NEW GUINEA	12
TABLE 5: MEAS ACTIVE IN PAPUA NEW GUINEA	13
TABLE 6: DEFINITIONS OF WASTE IN PAPUA NEW GUINEA’S LEGISLATION.....	17
TABLE 7: COMPLIANCE WITH MEA REPORTING REQUIREMENTS	32
TABLE 8: GLOSSARY OF LEGAL TERMS	38
TABLE 9: ACRONYMS	40
TABLE 10: PACWASTEPLUS PROGRAMME DEFINITIONS	41
TABLE 11: LEGISLATION IMPACTING WASTE GOVERNANCE IN PAPUA NEW GUINEA	42
TABLE 12: NOTIFICATION, INFORMATION SHARING AND REPORTING REQUIREMENTS OF MEAS	48
TABLE 13: LEGISLATIVE MODELS AND INSTITUTIONAL REQUIREMENTS	53
TABLE 14: LEGISLATIVE MODELS IN PARTICIPATING COUNTRIES’ WASTE LAWS.....	57

About this Report

Sources of Information



Publicly available online resources about waste management laws in the participating countries (e.g. PacLII, EcoLEX, SPREP, InforMEA and FAOLEX, as well as the websites of government departments and other agencies administering waste and other environmental laws in the participating countries)



Qualitative information derived from interviews (remote and face-to-face) with in-country stakeholders



Additional information on legislation or pipeline initiatives identified by in-country contacts



An online survey sent to in-country participants requesting information on waste laws in their countries and their implementation, administration, and enforcement

In Papua New Guinea, interviews were conducted remotely with participants from government departments, agencies and contractors addressing issues of environmental protection, waste management, legal matters, as well as the private sector and NGOs.

Additional interviews were conducted with external consultants and SPREP staff working on specific programs relevant to the Waste Legislative Review.



Available online sources do not always contain the most up-to-date legislation or may be incomplete. Where possible, the UoM team drew on contacts with parliamentary libraries in the participating countries to source more recent legislation. However, it is not possible to say with certainty that all relevant legislation, or the most current versions, were identified in the desktop review.

For identifying proposed legislation, the UoM team relied on an online survey sent out to 110 in-country contacts in the participating countries (with a 21% response rate), as well as interviews with in-country contacts in the Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, the Republic of the Marshall Islands, Samoa, the Solomon Islands, Timor-Leste, the Kingdom of Tonga, Tuvalu, and Vanuatu.

Introduction

This assessment has been prepared by the *Secretariat of the Pacific Regional Environment Programme's* (SPREP) EU-funded PacWastePlus programme (PacWaste Plus or 'Programme'), drawing upon reporting developed by the University of Melbourne (UoM) on behalf of PacWastePlus for that programme's *Waste Legislative Review* project. The UoM team reviewed legislation relevant to waste management in 14 Pacific region countries and Timor-Leste. Separate assessments are provided for each of the PacWastePlus participating countries.

This assessment was designed to achieve a number of outcomes:

- Gain a working understanding of the legislative framework governing waste management in PacWastePlus participating countries
- Determine which countries have legislation that actively manages issues caused by the generation of waste streams that are the focus of the PacWastePlus programme activities (asbestos, e-waste, healthcare waste, recyclables, organics, bulky waste, disaster waste and wastewater) and plastic waste
- Understand strengths and weaknesses of the legislative frameworks to manage the waste issues and social and environmental problems caused by the generation of these wastes
- To provide some guidance on possible modifications to the legislative framework to improve waste management outcomes.

This assessment provides the broad findings of the research and investigation undertaken by the UoM team in relation to Papua New Guinea. It provides:

- A **stocktake of the existing legislative environment for waste management** in Papua New Guinea, focusing on the PacWastePlus priority waste streams of healthcare waste, asbestos, e-waste, recyclables, organics, disaster waste, bulky waste, and wastewater, as well as plastic waste, and including implementing legislation for the following multilateral environmental agreements (MEAs): Waigani, Basel, Stockholm, Rotterdam, and Minamata.
- A **stocktake of pipeline legislative initiatives** in Papua New Guinea, including an assessment of their impact and approximate timeframe for development.
- An **assessment of the legislative framework** and its relevance to the PacWastePlus programme focus waste streams and plastic waste
- An **assessment of the capacity** of Papua New Guinea's government to enact the instruments included in the legislative framework
- **Options for strengthening the legislative framework** for the Government of Papua New Guinea to deliver its desired waste management outcomes.

SECTION 1: LEGISLATIVE STOCKTAKE



This stocktake provides a detailed view of the legislative environment governing waste management currently in operation in Papua New Guinea

Legislative Summary

Legislation impacting waste governance

Responsibilities for waste and environmental management exist within a range of legislation and regulations, but no single point of control exists to regulate planning and operation.

The Papua New Guinea government has identified the need for policies and strategies to rectify this situation and to implement its commitments under relevant MEAs effectively. An audit conducted by the Office of the Auditor-General of Papua New Guinea in 2010 included a specific recommendation that the Department of Environment and Conservation consider formulating consolidated solid waste management legislation that deals with the management of solid waste in Papua New Guinea. No such legislation has yet been enacted.

Apart from the above-mentioned audit, no recent analysis of the main national waste situation has been undertaken and no inter-sectoral mechanism was identified.

The following tables provide a stocktake of the existing legislative environment for waste management and governance Papua New Guinea. Each table includes hyperlinks (current as of the date of this report) to electronic versions of these instruments.

- **Table 1** Error! No bookmark name given. details the legislation impacting waste governance in Papua New Guinea.
- **Table 2** lists the key policy instruments and reports.
- **Table 3** notes the departments with responsibilities for waste management.

Table 1: Legislation impacting waste governance in Papua New Guinea

LEGISLATION	REGULATIONS
<p>Environment Act 2000 (as at 2006) Environment (Amendment) Act 2010 Environment (Amendment) Act 2012 Environment (Amendment) Act 2014 Environment (Amendment) Act 2015</p> <p>This is the principal legislation for environmental protection, providing for constitutional requirements and regulating the environmental impacts of development activities and the management of national water resources. It is implemented through multiple environment regulations under the Department of Environment and Conservation through the Conservation and Environment Protection Authority. It empowers provincial and local governments to develop environmental legislation, policies, and by-laws for waste management. The legislation also requires the development of national policies and a national solid waste management strategy with associated regulations.</p> <p>NB. The Act linked above includes amendments up to 2006. For additional amendments, the subsequent amending legislation must be consulted.</p>	<p><u><i>Environment (Water Quality Criteria) Regulation 2002 (commenced 2004)</i></u></p> <p><i>Environment (Prescribed Activities) (Amendment) Regulation 2011 (commenced 2011)</i></p> <p>Prescribes activities, including those related to waste treatment and disposal, which require permitting.</p> <p><i>Environment (Ozone Depleting Substances) Regulation 2007</i></p> <p><i>Environment (Control of Biodegradable Plastic Shopping Bags) Regulation 2011_ (commenced 2011)</i></p> <p>According to the Papua New Guinea Profile in the <i>Solid Waste and Recycling Sector</i> (PRIF, 2018), this regulation controls the manufacture and importation of biodegradable plastic bags through the issuance of an environment permit. Bags are required to be labelled and must meet the standards of the Department of Environment and Conservation.</p> <p><i>Environment (Registration of Contaminants and Hazardous Contaminants) Regulation 2011 (commenced 2011)</i></p>
<p>Public Health Act 1973 (as at 1973) Public Health (Amendment) Act 2015</p> <p>Administered by the Department of Health. Provisions relate to practices of scavenging and waste disposal, as well as fines for illegal dumping.</p>	<p><u><i>Public Health (Sanitation and General) Regulation 1973</i></u></p> <p><u><i>Public Health (Sewerage) Regulation 1973</i></u></p> <p><u><i>Public Health (Septic Tanks) Regulation 1973</i></u></p>
<p>National Water Supply and Sanitation Act 2016</p> <p>Provides that ‘the Company’ (Water Papua New Guinea Limited) shall operate and maintain sanitation systems in a sanitation district.</p>	<p>National Water Supply and Sewerage Regulation</p>

LEGISLATION

Functions of 'the Company' include:

- to provide, design, construct and maintain such sanitation systems as may be required in and for the disposal of sewage and wastewater in and for cities, towns and rural areas
- to abide by such water quality and sewerage discharge standards as are from time to time in force

Customs Act 1951 (as at 2005)

Customs (Amendment) Act 2009

Customs (Amendment) Act 2014

Regulation of imports of goods into Papua New Guinea.

Regulations under this legislation prohibit the import of plastic shopping bags defined as: 'being any of the substances defined as all High-Density Polyethylene (HDPE) plastic bags with or without handles used or provided at the point of sales, used as carrying or transporting of retail or wholesale goods including: (a) HDPE carry bags; and (b) Vegetable or tear-off bags; and (c) Food bags (used at Kai Bars)'.

National Capital District Commission Act 2001 (numerous amendments, including in 2004, 2006, 2007, 2008 and 2009)

Provides for public welfare protection in relation to waste and environmental management.

Local-Level Governments Administration Act 1997 (as at 2005)

Organic Law on Provincial Governments and Local-level Governments (as at 2014)

This legislation empowers local governments to formulate waste management policies, legislation, and by-laws.

REGULATIONS

Customs (Prohibited Imports) Regulation 1973 (as at approx. 2009)

Customs (Prohibited Imports) (Pesticides) Regulation 1993

Customs (Prohibited Imports) (Plastic Shopping Bags) Regulation 2009

Customs (Prohibited Imports) Plastic Shopping Bags (Amendment) Regulation 2011

Not available online.

None identified.

None identified.

Table 2: Policies and reports impacting waste governance in Papua New Guinea

POLICY	DESCRIPTION
PNG Development Strategic Plan 2010 – 2030 (2010)	Section 6.6 deals with the Environment.
National Health Plan 2011–2020	Discusses effective waste disposal in the context of reducing disease outbreaks.
PNG National Water, Sanitation and Hygiene (WaSH Policy) 2015–2030	Includes reference to effective disposal of solid waste.
National Climate Compatible Development Management Policy	References to eco-industrial development, infrastructure for solid waste management and recycling.
Papua New Guinea Vision 2050 (2009)	Chapter 16 deals with Environmental Sustainability and Climate Change.
National Strategy for Responsible Sustainable Development for Papua New Guinea (2nd Ed, 2014)	Reference to green growth policies include cost recovery in waste management and environmental taxes such as pollution charges.
Medium Development Plan III 2018–2022	Includes supporting waste management activities as a medium-term focus.
Environment (Ban on Non-Biodegradable Plastic Shopping Bags) Policy 2009	Unable to locate policy document online but implemented through Customs regulations discussed above.
National Implementation Plan for Management of Persistent Organic Pollutants in Papua New Guinea	Submitted in fulfilment of PNG’s obligations as a party to the Stockholm POPs Convention.
NCDC Strategic Plan 2017-2022	Strategic plan for National Capital District Commission.
REPORTS	DESCRIPTION
Effectiveness of Solid Waste Management in Papua New Guinea 2010	Audit report by the Office of the Auditor-General of PNG (2010). The audit was undertaken under s 214 of the Constitution of PNG on a number of public entities involved in the management of waste, focusing on whether they have used their resources in carrying out their solid waste management responsibilities.
Statements by the National Capital District Commission	Includes a summary of the NCDC’s approach to waste management at the provincial level.
Basel Convention National Report 2004	Submitted in fulfilment of PNG’s obligations as a party to the Basel Convention.

Table 3: Government departments with waste responsibilities in Papua New Guinea

GOVERNMENT DEPARTMENTS	RESPONSIBILITIES
Conservation & Environment Protection Authority (CEPA)	Manages and implements the <i>Environment Act 2003</i> .
Ministry of Health	Administers the <i>Public Health Act 1973</i> .
Water Papua New Guinea Limited	Responsible authority for the <i>National Water Supply and Sanitation Act 2016</i> .
Customs Service	Administers the <i>Customs Act 1951</i> .
National Capital District Commission (NCDC)	Established by the <i>National Capital District Commission Act 2001</i> . Has powers regarding control of litter, sanitation, and garbage.
Department of Provincial and Local-Level Government Affairs	Administers the Organic Law on Provincial Governments and Local Level Governments.
Department of National Planning and Monitoring	Responsibility for the <i>Papua New Guinea Development Strategic Plan</i>

Pipeline activities

The following sections provide details of identified pipeline legislative activities for waste management and governance in Papua New Guinea. Limited information was available on pipeline activities through the desktop review.

An ongoing need identified for PNG is the implementation of commitments to adopt specific waste management legislation, as this has been identified as a priority area and legislative need in several reports. Reference was found to regulations under the *Customs Act* to implement a ban on plastic bags.

News reports refer to a plastic bag import ban coming into effect in PNG from 31 January 2020 following government action taken in November 2019, although questions have been raised as to the legality of this action on the basis that it is 'not supported by legislation'. It also remains unclear how the ban will be implemented and enforced. Another report has indicated that this ban has been postponed until March 2020.

PNG is partnering with the Chemicals and Waste Management Programme in UNEP to strengthen and enhance the growth of PNG's economy through the incorporation of a strategic approach to dealing with the risk of chemicals and waste, in accordance with relevant MEAs. This will involve the development of a policy for chemicals and waste management, establishing a national coordinating body and a specific chemicals and waste management division in CEPA.

Table 4: Pipeline activities for Papua New Guinea

PIPELINE ACTIVITY	DESCRIPTION	TIMEFRAME
Adoption of specific waste management legislation	Need for such legislation identified as a key gap e.g. Papua New Guinea Profile in the Solid Waste and Recycling Sector (PRIF, 2018) and The Effectiveness of Solid Waste Management in Papua New Guinea 2010 .	Not specified.
Plastic bag import ban	Enforcement of regulations e.g., under <i>Customs Act</i> to implement a ban on single-use plastic bags.	In effect from 31 Jan 2020 according to some news reports ; potentially postponed to March 2020.
Chemical and waste management system	Partnership with UNEP Chemicals and Waste Management Programme to develop a strategic approach to chemicals and waste management.	Ongoing.

Stocktake of Relevant Multilateral Environmental Agreements

The relevant Multilateral Environmental Agreements (MEAs) for the stocktake were the:

- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention);
- Stockholm Convention on Persistent Organic Pollutants (Stockholm POPs Convention);
- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention);
- Minamata Convention on Mercury (Minamata Convention); and
- Convention to ban the Importation of Hazardous and Radioactive Wastes into Forum Island Countries and to Control the Transboundary Movement and Management of Hazardous Waste within the South Pacific Region (Waigani Convention).

Table 5 provides details of the membership of Papua New Guinea to these MEAs.

Table 5: MEAs active in Papua New Guinea

MEA	IN EFFECT FOR COUNTRY	DESIGNATED NATIONAL AUTHORITY OR NATIONAL FOCAL POINT	IMPLEMENTING LEGISLATION
Basel Convention	30 Nov 1995	The Secretary, Department of Environment and Conservation Level 7 Somare Foundation P.O. Box 6601 Boroko, National Capital District Papua New Guinea Phone: +675 325 01 80 Fax: +675 325 01 82 Email: dougal@daltron.com.pg (query currency)	No specific implementing legislation but see Basel Convention National Report 2004 (submitted in 2006).
Minamata Convention	Not party		
Rotterdam Convention	Not party		
Stockholm Convention	16 May 2004	The Secretary, Department of Environment and Conservation Level 7 Somare Foundation P.O. Box 6601 Boroko, National Capital District Papua New Guinea Phone: +675 325 01 80 Fax: +675 325 01 82 Email: dougal@daltron.com.pg (query currency)	Not specified but see National Implementation Plan for Management of Persistent Organic Pollutants in Papua New Guinea .
Waigani Convention	21 Oct 2001	Secretary, Department of Environment and Conservation 1st Floor, B-Mobile House PO Box 6601 Boroko, NCD PAPUA NEW GUINEA Tel: (675) 3014500; Fax: (675) 325 0182 E-mail: guntherjoku@gmail.com	No specific implementing legislation.

SECTION 2: LEGISLATIVE ASSESSMENT



This qualitative assessment of Papua New Guinea's legislative environment has classified Papua New Guinea's waste-related laws on a scale of low-to-high against the criteria of relevance, coherence, effectiveness, efficiency and impact.

Legislative Framework Assessment

Methodology

Approach and Criteria

This legislative assessment was undertaken utilising a qualitative approach.

Legislation in Papua New Guinea was evaluated against the following criteria that build on the OECD Development Assessment Committee (DAC) evaluation criteria 1990, as updated:



Relevance

defined as the extent to which legislation directly relates to, or provides coverage of, the priority waste streams of healthcare waste, asbestos, e-waste, plastic waste (including single-use plastics), recyclables, organic waste, bulky waste, disaster waste and wastewater.



Coherence

defined as the extent to which different elements of legislation and their administration fit together, or whether there are conflicts or lack of coordination between laws that undermine coherence.



Effectiveness

defined as the extent to which the legislation contains mechanisms necessary to achieve legislative objectives relating to the management of the priority waste streams.



Efficiency

defined as the extent to which the legislation makes provision for the allocation of responsibilities and resources (personnel, information, financial) to allow fulfilment of legislative requirements.



Impact

defined as the contribution the legislation makes to waste management and environmental protection from waste-related pollution.

Based on the evaluation of Papua New Guinea's legislation against the criteria, gaps in existing legislation relating to waste were identified. These gaps provide a basis for understanding what opportunities exist for Papua New Guinea to develop and/or implement additional legislative instruments to in achieving waste management and environmental outcomes.

Overview of the legal system



Papua New Guinea has a population estimated at approximately 8,526,000 (UN mid-2019 projection). The PNG mainland and its six hundred islands have a total land area of 452,860 square kilometres. The official languages of PNG are Tok Pisin (widely used and understood), English (spoken by 1%-2%) and Hiri Motu (spoken by less than 2%). There are about 839 indigenous spoken languages.



The eastern half of the island of New Guinea was divided between Germany and Britain in 1885. The German colony was named 'German New Guinea'. 'Papua' was firstly a British protectorate and then became a British colony in 1888. It was placed under the authority of the Commonwealth of Australia in 1902 and renamed the Territory of Papua. After World War I the British Government assumed a mandate from the League of Nations to govern on behalf of Australia. After the surrender of the Japanese occupying forces at the end of World War II, the United Nations granted the trusteeship of both territories to Australia, which continued to administer the combined areas of Papua and New Guinea until 1975. Papua New Guinea became an independent sovereign state in 1975.



The Independent State of Papua New Guinea is a constitutional monarchy. It is a democracy with a Westminster-style parliamentary system. PNG has a unicameral national parliament and a two-tiered system of general jurisdiction courts. Other courts created by the parliament include the Land Court, and there is also provision for the establishment of village courts by the Minister on request from the local community.



PNG has a mixed system of common law and customary law. Sources of law are the Constitution (as the supreme law), written laws (e.g. Acts of parliament and subordinate legislation), English common law and customary law, defined as 'customs and usages of the indigenous inhabitants of the country existing in relation to the matter in question at the time when and the place in relation to which the matter arises' (see *Underlying Law Act 2000*). Written laws take precedence over customary law.



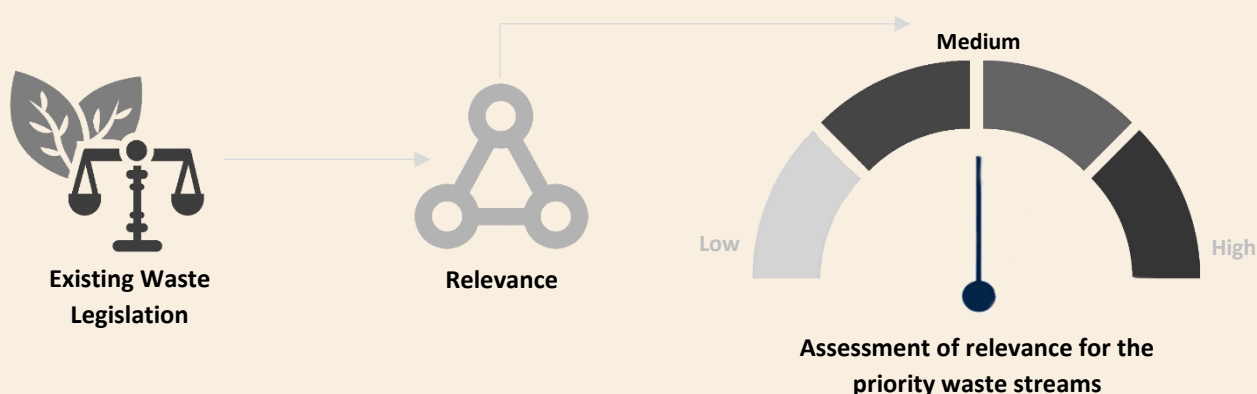
The PNG Constitution provides in its preamble that its fourth National Goal is Natural Resources and Environment. It calls for wise use of natural resources, conservation and replenishment of the environment, and adequate protection of flora and fauna.

Legislative Assessment

This section contains a qualitative legislative assessment for Papua New Guinea against the evaluation criteria: Relevance, Coherence, Effectiveness, Efficiency, Impact. While ratings against the criteria are classified on a scale of low to high, the ratings reflect an assessment of the performance of Kiribati’s waste-related laws in their specific operating context.

A glossary of legal terms used in the report is provided in **Annex 1**.

Relevance



Responsibilities for waste and environmental management exist within a range of PNG legislation and regulations, but no single point of control exists to regulate waste management, planning and operation. The *Environment Act 2000* and later amendments confer wide powers to manage the environment sustainably in accordance with constitutional protections for the environment (including waste management). In association with the more specific legislative objectives, Papua New Guinean legislation gives broad powers to regulate most aspects of the priority waste streams.

To determine relevance, consideration of the various legislative definitions has been assessed.

Table 6: Definitions of waste in Papua New Guinea’s legislation

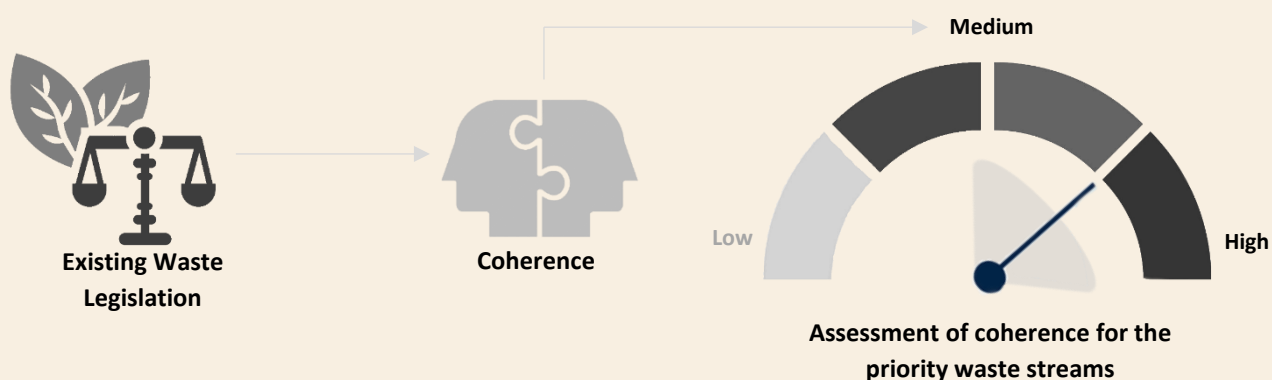
Legislation	Definitions
<i>Environment Act 2000</i>	<p>“contaminant” means – (a) a gas, liquid, or solid; or (b) an odour; or (c) an organism (whether alive or dead), including a virus; or (d) energy, including noise, heat, radioactivity, and electromagnetic radiation; or (e) a combination of contaminants, which when released into the environment causes or is likely to cause environmental harm, and includes a hazardous contaminant, ozone -depleting substance or any litter.</p> <p>“environmental harm” means any change to the environment, or any part of the environment, which has a detrimental effect on any beneficial value relating to the environment, and –</p> <p>(a) may be caused by an act or omission whether the harm – (i) is a direct or indirect result of the act or omission; or (ii) results from the act or omission alone or from the combined effects of the act or omission and any other act or omission;</p> <p>and</p>

Legislation	Definitions
<p><i>The Public Health (Sanitation and General) Regulation 1973</i></p>	<p>(b) without in any way limiting the meaning of environmental harm, a person shall be deemed to have caused environmental harm if that person – (i) causes or permits to be placed in or so that it may be released into the environment any contaminant which is prohibited by or under this Act or does not comply with any standard prescribed for that contaminant; or (ii) causes or permits the release of any contaminant into the environment in contravention of this Act; or (iii) uses any chemical substance or fuel the use of which is prohibited by or under this Act; or (iv) contravenes any regulation dealing with the use of any ozone depleting substance, or the manufacture, assembly, operation, maintenance, removal, sale or disposal of goods, equipment, machinery, or plant containing or using an ozone-depleting substance; or (v) places a contaminant in any position where it could reasonably be expected to gain access to waters in circumstances where if access was gained the contaminant would result in the waters being changed in a manner prohibited by this Act or which does not comply with any standard prescribed for that contaminant; or (vi) causes or permits the temperature of the receiving waters to be raised or lowered by more than prescribed limits; or (vii) establishes on land a site for the disposal of refuse, garbage, soil, rock or other solid or liquid waste so as to be obnoxious or unduly offensive to the senses of human beings or so as to interfere with any ground water in a manner prohibited by this Act or which does not comply with any standard prescribed for that contaminant</p> <p>‘litter’ is defined as including ‘any bottle, tin, carton, package, paper, glass or other refuse, rubbish or unwanted thing or any abandoned vehicle or part thereof.’</p> <p>‘Refuse’ for these purposes is defined as ‘any dung, offal, garbage, rubbish, dead animal or matter that is unwholesome or from which any offensive odour arises’</p>

- Issues specific to the PacWastePlus waste streams include: Organics are typically regulated as a form of solid waste, and this category can include food and green waste, such as vegetation. There is no dedicated legislative framework for the management of organic waste, or indeed, solid waste in PNG. The regulation of organic waste, therefore, is spread across several pieces of legislation. These include the *Public Health Act 1973*, as amended (e.g., food waste) and under the *National Capital District Commission Act 2001*, as amended (e.g., as part of municipal waste collection and environmental health responsibilities). Organic waste does not clearly fit within any one piece of legislation. The relevant law will also vary according to the location across Papua New Guinea.
- Other legislation includes references to rubbish potentially covering plastic waste (e.g., *Public Health Act* and its Regulations), and plastics also could be regulated as rubbish under general municipal laws. There is, however, a gap in the legal framework in terms of capturing any re-use or recycling capacity for plastic wastes.
- Papua New Guinea has taken initiatives to regulate specific forms of plastic waste. Regulations under the *Customs Act* prohibit the import of plastic shopping bags defined as ‘being any of the substances defined as all High-Density Polyethylene (HDPE) plastic bags with or without handles used or provided at the point of sales, used as carrying or transporting of retail or wholesale goods including:
 - HDPE carry bags
 - Vegetable or tear-off bags
 - Food bags (used at Kai Bars)’.

An earlier regulation, the *Environment (Control of Biodegradable Plastic Shopping Bags) Regulation 2011*, controls the manufacture and importation of biodegradable plastic bags through the issuance of an environment permit. Bags are required to be labelled and must meet the standards of the Department of Environment and Conservation.

Coherence



In Papua New Guinea, the *Environment Act 2000*, its amending legislation, and regulations form the principal legislative structure for environmental protection, (including protection of the social and physical well-being of people), providing for constitutional requirements, and regulating the environmental impacts of development activities, and the management of national water resources. Waste management and minimisation form a component of that multi-function legal framework. The *Environment Act* is implemented through multiple environment regulations under the Department of Environment and Conservation through the Conservation and Environment Protection Authority (CEPA).

On paper, this legal framework exhibits a level of coherence in that the *Environment Act* incorporates many areas of environmental protection and regulation, including waste management, in one governing framework. There are advantages in bringing together environmental impact assessment, pollution controls and waste management within the Environmental Protection Policies and Technical Standards framework and ensuring that permits and approvals and the administration associated with those processes, effectively sit under the umbrella policy or standard.

The lack of an expansive and detailed definition of waste under the *Environment Act* (the term 'waste' is not included in the relevant interpretation section of the legislation, although there are incidental references to waste, 'solid waste' and 'liquid waste') limits the coherence of the waste-related administration. In particular, the lack of a defined term for 'waste' makes it then unclear if or how waste may be included or excluded in processes and for what purpose. The graded level of activities to be regulated under various measures do have some specific references to waste, (e.g. landfill operations), but the breadth of the legislative functions in the Act pose difficulties in matching with an effective administrative and implementing structure.

There appears to be a gap between the legislative framework governing waste management (as a component of environmental protection under the *Environment Act*) and the operational level of waste management. While provincial and municipal waste laws are largely focused on solid waste management, there was often an absence of enabling legislation and supporting frameworks to take care of other waste materials, including hazardous waste.

At a practical level, this means that, by default, these wastes fall within the 'operational jurisdiction' once they are within the territory of the municipality or province. That operational level jurisdiction then takes on those responsibilities in the absence of clearly targeted responsibilities for such wastes in relevant legislation, noting there was often no supporting legislation, or standard operating procedures, for how such materials should be managed.

In respect of healthcare waste, which is governed primarily through the Ministry of Health, the coherence of the legal framework is challenged by the lack of explicit reference to healthcare waste in relevant laws, and a mix of responsibilities and administration under the broad powers that could pertain to healthcare waste, i.e., the *Public Health Act*, local laws, and the *Environment Act*.

Effectiveness



The central national legislation to be assessed in relation to waste management (sitting within the context of a diversity of other pieces of relevant legislation) is the *Environment Act 2000* and its amending legislation. It is an ‘omnibus’ statute that combines elements of environmental protection, environmental impact assessment, pollution control, and waste management, and which acknowledges the role of customary law and landownership. Accordingly, it contains a wide range of objectives.

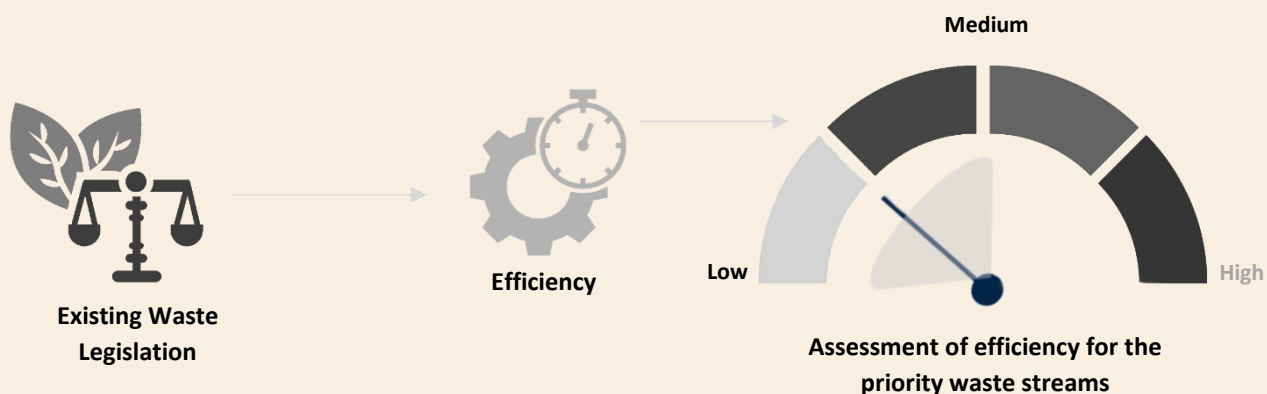
Measures to achieve the legislative objectives are outlined in section 6, entitled ‘how the object of this Act is to be achieved’. This is a complex, multilayered process of prescribing how objectives are to be determined and the steps for their achievement. An example is ‘*applying the environmental objectives to level 1 activities by means of Environmental Codes of Practice, Environment Protection Orders, Clean-up Orders and Emergency Directions,*’ which could apply to a range of priority waste streams, such as clean-up orders for contaminants from solid or bulky waste, but the fit is not clear.

The lack of a clearly targeted legislative objective for waste management and minimisation in the *Environment Act* makes it difficult to assess the effectiveness of the legislation against waste management outcomes in the country. It is acknowledged that the Act contains provisions for national environmental policies that may cover waste management or minimisation (s 31(2)(f)). It appears that waste management often tends to be conflated with environmental protection, environmental impact assessment and development controls, and permitting and/or pollution and discharge controls.

Waste seems to be substantively regulated under the concept of environmental harm, or otherwise may be a gap in the regulatory coverage. The *Environment Act* imposes a general environmental duty (s 7), which could apply to waste of various sorts to the extent that it causes harm. Without direct and clear regulatory models for waste management driving implementation, the effectiveness of the legislation for managing wastes is not apparent.

While the integration of waste into a holistic model of environmental protection is a worthy aim, in practical terms, it makes navigating the legislation to determine waste management objectives quite difficult. A recommendation is the possibility of creating a separate legal framework or Part of the Act for waste management at a national level. This could also provide a model, with appropriate tailoring, for municipal and provincial governments.

Efficiency



It appears that there are a range of staffing and financial constraints that impact upon the efficient allocation of resources to fulfil legislative objectives across the diverse and extensive areas of waste management, particularly in relation to emergent wastes, such as e-waste and recycling.

There appears to be a rather uneven distribution of resources and finances across levels of government, and within different agencies and sectors that impacts the fulfilment of legislative objectives. There are expansive responsibilities included in the *Environment Act*, but it appears that, due to development pressures, much of the staffing is directed to areas such as permitting, environmental impact assessment and development approvals, that do not so directly engage processes for waste management.

There are opportunities for waste management to receive a stronger allocation of public funding to support activities in this area. Waste management is regarded primarily as an area of social service provision.

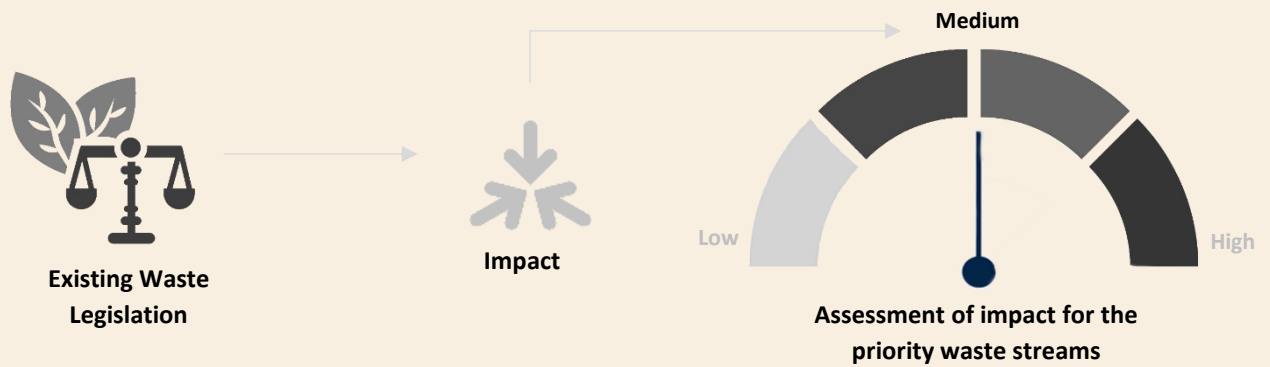
There are disjunctions between the range of responsibilities for waste management and environmental protection, and the available resources and staffing and funding at many levels:

- There is a perceived discrepancy between the responsibilities at an operational level for managing many forms of solid and hazardous wastes, and the available resources and staffing.
- There are major differences in the extent of service provision across the country, particularly in provincial and rural areas.

At the operational level, waste management operates largely on a public utility model, albeit with private contractors involved, for example, in waste collection services. There appear to be limits to the efficient recovery of fees for services and to any extension of a user-pays system.

At the municipal level there appear to be resource constraints that have stalled efforts to increase recycling and reuse opportunities.

Impact



The central legislation, the *Environment Act 2000*, traverses many facets of environmental protection and sets ambitious objectives. It seeks to implement a wide range of functions and responsibilities for environmental protection and pollution controls. Waste management is an identified component of that Act, but it appears to be overshadowed within this framework.

The role of compliance and enforcement is an important one in gauging impact. There is evidence of a growing emphasis on compliance. Despite a wide range of compliance and enforcement measures available under various laws, there appears to be relatively limited prosecutions or other enforcement. The research identified only one prosecution (case) related to waste. This 2002 case related to a criminal prosecution under littering laws.

SECTION 3: CAPACITY ASSESSMENT



This qualitative assessment of Papua New Guinea's capacity to engage in different aspects of waste governance is on a scale ranging from low to high. It considered drafting, enactment, implementation, ensuring compliance with, and enforcing its existing and proposed legislation relevant to waste management, as well as its capacity to comply with reporting obligations under relevant Multilateral Environmental Agreements (MEAs).

Methodology

Approach and Elements

This legislative capacity assessment was undertaken utilising a qualitative approach, evaluating the capacity of Papua New Guinea's to engage in different aspects of waste governance on a scale ranging from low to high.

The evaluation was made based on the following aspects of Papua New Guinea's waste management legislation/governance:



Drafting

Relating to processes for the drafting of new, modified or additional legislation, including the availability of legal expertise, personnel and supporting technical knowledge or information.



Enactment

Relating to processes for enacting new, modified or additional legislation, including the existence of appropriate powers to legislate on the topic and relevant obligations of the country under international conventions and agreements, such as MEAs, as well as trade and investment agreements.



Implementation

Capacity to carry out existing or proposed legislation, including the availability of appropriate personnel, information, powers, administrative delegations, and resources.



Compliance and Enforcement

Capacity to ensure those bound by obligations under legislation comply with those obligations, as well as the capacity to prosecute or otherwise take action in response to breaches of legislative requirements, including the availability of enforcement personnel, powers, administrative delegations, tribunals for bringing enforcement actions and resources



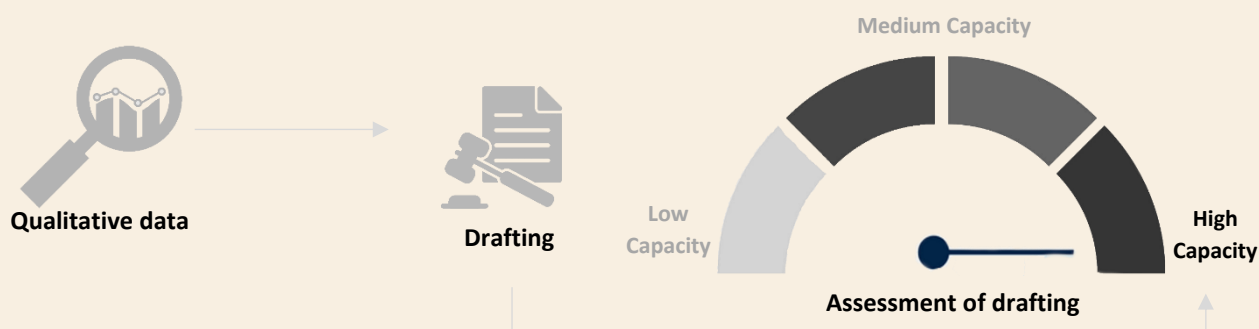
Reporting under relevant MEAs

Capacity to comply with reporting and other notification requirements specified under relevant MEAs to which the participating country is party, including availability of data, personnel and resources to produce the required reports. The assessment of MEA reporting compliance adopted a coding approach that rated the countries' level of compliance based on several indicators.

Capacity Assessment

This section contains a qualitative assessment of Papua New Guinea’s capacity with respect to drafting, enactment, implementation, ensuring compliance with, and enforcing its existing and proposed legislation relevant to waste management, as well as its capacity to comply with reporting obligations under the MEAs to which it is party.

Drafting



PNG appears to have relatively high capacity to support drafting of legislation for waste governance, with some more significant local adaptation constraints apparent, especially in respect of legislation for healthcare wastes.



PNG has effective drafting capacity in terms of a dedicated national legal office and associated staff available to draft legislation. The PNG’s Office of Legislative Counsel (OLC) was established in 1972 under the *Legislative Drafting Service Act*. It is staffed by the First Legislative Counsel, the Second Legislative Counsel, an Assistant Legislative Counsel and a Commissioner.



The OLC is responsible for drafting all of PNG’s laws, including subordinate legislation. According to the website of the OLC, the process of legislative drafting is initiated by a ‘policy submission’, prepared by the responsible department and including drafting instructions.



This is followed by a ‘certificate of necessity’ to be issued by the State Solicitor, and the approval of Cabinet (the National Executive Council or NEC).

A bill is read twice, after which Parliament votes on the bill. Subordinate legislation, such as regulations, are drafted by the OLC upon receipt of instructions, though the NEC.



Next the NEC directs the First Legislative Counsel to draft the law, in the form of a bill, which the First Legislative Counsel must then certify as conforming to the drafting instructions before it is circulated to Parliament.



Once drafted, regulations are submitted to the NEC for approval and then signing by the Governor General, before being notified through the Government Gazette.

Despite having a clear process for drafting, the actual legislation appears to draw heavily on external models with little modification to fit the PNG context. This may indicate limits on the availability of technical drafting skills and on the access to relevant technical information to adapt waste laws to local needs.

OLC staff appear to undertake some external training programs and to have access to external models for drafting legislation relevant to waste management and environmental protection. In the past there has been a close relationship between Australian legislation and the legislation adopted in PNG. Under revised arrangements with Australia from 2015, a small number of liaison/support officer roles were established to maintain relationships between PNG and Australian government departments. Assistance was provided to the OLC under this arrangement for training and support in relation to drafting laws, and the functioning of the OLC.

The central legislation, the *Environment Act 2000*, incorporates a wide number of legislative models that are routinely used in Australian environmental, pollution control, and to a lesser extent, waste management law. This situation suggests a reliance upon external legislative models rather than necessarily developing the laws from policy-based instructions from relevant agencies.

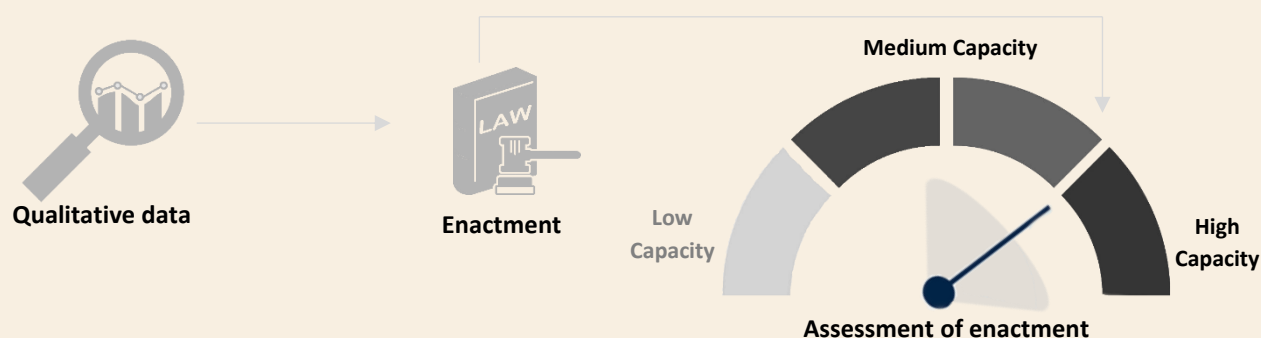
There is a well-developed court system within PNG that extends to provincial areas and local courts, with provision also for village courts. There is associated research capacity, for example, through Parliamentary and Supreme Court libraries, that supports the drafting capacity. There appears to be a reasonable capacity to access technical information in the waste management field, but interview data acknowledged gaps in available technical expertise in specific areas, such as e-waste and chemical waste regulation. More extensive knowledge and technical capacity gaps may exist at municipal and local levels.

At a national level, there is available legal professional expertise, in government departments and in private practice, with supporting research and technical expertise for drafting new, modified, or additional legislation. Interview data indicated that there are often staffing constraints at a policy-setting level within Ministries and departments that may affect capacity to draft instructions, and for undertaking a more comprehensive review of laws. The drafting capacity (i.e. regulatory and by-law making functions) within the National Capital District Commission (NCDC) was effective but the organisation appears to have staffing and resource constraints.

The devolved system of law-making and legislation under the Organic Law on Provincial Governments and Local-level Governments reflects the importance given to local areas and customary landownership. It is not clear how drafting capacity for waste management laws in PNG taps into this part of the legal system, as the knowledge basis for drafting appears very Western and technically oriented.

While each legal system has its own conventions for drafting and ways of formulating legislation, the drafting within the *Environment Act 2000* is complex. Information about legal obligations and responsibilities for waste management are not readily accessible, or easily found. The language used and the drafting models may inhibit the user-friendliness of the legislation. Ideally laws of this nature, which direct how activities are to be performed, should be able to be translated effectively into practical application.

Enactment

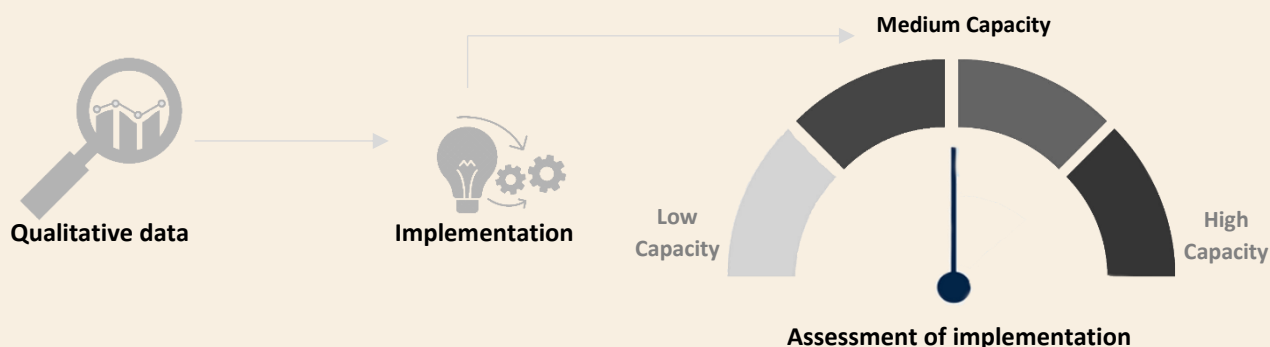


PNG has a well-developed legal system and the general capacity to enact legislation. In addition, the appropriate law-making powers under the Constitutional structure are clearly articulated. There are identified powers to make legislation on the topics relevant to waste. There are also general processes for amending legislation. Amendment to waste-related and environmental laws is quite extensive and consistent (see, for example, the progressive amendments made to the *Environment Act 2000*).

There appear to be some backlogs, however, to full and effective revision of some older pieces of legislation. The current amendment process tends to create complex pieces of legislation where amendments are added to existing Acts, rather than conducting a more thorough revision. The legislation dealing with waste appears to have developed this way. There may be a need for a more extensive review of waste-related laws and the possibility of streamlined legislation directed to wastes.

There may be a need to review and reform of existing legislation, and to design legislation that connects and relates to other laws, in order to identify gaps, overlaps and opportunities to consolidate existing laws. Similarly, it may be worth considering if there should be an emphasis on laws that clearly authorise people or agencies to achieve the desired policy outcomes.

Implementation



The PNG legal framework that includes legislation relevant to waste management covers a wide range of responsibilities, functions, and operational levels. The capacity to implement the legal framework across the country varies considerably. One of the major constraints is the availability of the necessary resources to administer and operate waste management laws across a nation of around eight million people.

Resource constraints are compounded by development and socio-economic pressures, and the range of competing demands on environmental and natural resource laws and their administration, such as those relating to regulating the mining sector. Implementation of waste management related laws may not always be given priority in this context, in part because such laws rely more on a service provision, rather than an economic income generation, model.

Staffing levels in critical operational and compliance and enforcement areas are often inadequate for the responsibilities entailed in these positions. Ongoing capacity development of staff to ensure effective administration of waste laws is seen as an urgent need.

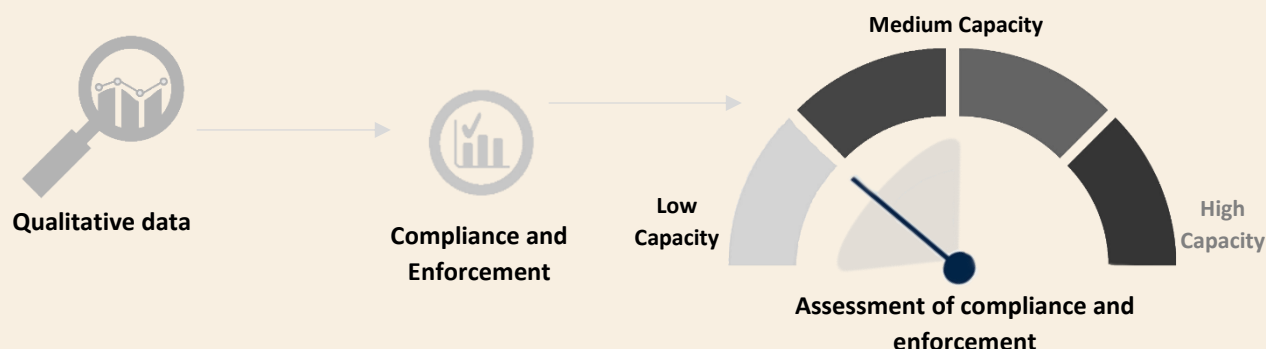
Some gaps in waste management planning, and how such plans are translated into operational procedures was noted.

There are opportunities to expand private sector involvement in waste management, but that there is a need for more facilities and incentives, especially as export markets for several recyclables are decreasing.

Waste management laws often require technical expertise for their implementation. While there were some gaps in availability of technical implementation expertise across the nation, the National Capital District (NCD) appeared to be able to draw on such expertise.

There are major financial issues affecting implementation of the laws concerning waste. Typically, municipal, and local authorities fund waste management operations (including waste collection services and landfill operations) from a range of sources, including licence fees, tariffs, and land tax payments. This is often a sizeable proportion of local authority budgets, which in turn, may limit what can be funded in terms of waste minimisation programs and community awareness campaigns regarding waste sorting.

Compliance and enforcement capacity



The legislative permitting and development control processes under PNG's waste-related laws, as they relate to waste management and prevention of environmental harm, are effective. There are a wide range of other compliance and enforcement measures in the relevant legislation where implementation is negligible or *ad hoc*.

Most of the legislation relevant to regulating the priority waste streams contains reasonably well-developed compliance and enforcement regimes that utilise a range of measures in substitution for, or in addition to, monetary fines or imprisonment as forms of sanction.

For example, the *Environment Act 2000* adopts a compliance model whereby activities which may cause material or serious environmental harm or may have a negative or significant negative impact on a matter of national importance, are an offence if taken without an environment permit for that activity. This would cover many waste-related offences, such as discharging or dumping of liquid or solid wastes, such as e-wastes, that have contaminants.

The *Environment Act* contains a broad definition of 'contaminant' that covers 'a gas, liquid, or solid; or an odour; or an organism (whether alive or dead), including a virus; or energy, including noise, heat, radioactivity and electromagnetic radiation; or a combination of contaminants, which when released into the environment causes or is likely to cause environmental harm, and includes a hazardous contaminant, ozone-depleting substance or any litter' (s 2).

This potentially provides coverage for improper disposal for most of the priority waste streams. It may also extend to managing waste impacts from plastics, organics and wastewater that have a significant negative environmental impact, for example, on waterways. The prescribed penalty in the case of a corporation, is a substantial fine, and in the case of a natural person, a lesser fine or imprisonment.

There is a general duty under the *Environment Act* not to cause environmental harm (s 7). Failure to comply is not an offence giving rise to a civil remedy, instead, compliance may be enforced by various types of orders, including an Environment Protection Order, a Clean-Up Order, or an Emergency Direction. In relation to bulky waste, such as refrigerators using ozone depleting substances as coolants, the Environment (Ozone Depleting Substances) Regulation 2007 sets additional offences.

While there are comprehensive compliance regimes with effective and/or significant penalties in place, there may be difficulties for administrative and legal staff in establishing relevant offences. Many of the offences require testing to establish evidence of the contravention, and more generally in gathering scientific and other information about what constitutes material or serious environmental harm. These activities can take considerable resources and staff time. Such compliance provisions typically are aligned to a pollution regime, and while it is important for PNG to maintain and enforce compliance in relation to these environmental harms, the enforcement model may not be well targeted to other waste compliance objectives, such as recovery of the economic value of wastes.

The Public Health (Sanitation and General) Regulation 1973, made under the *Public Health Act*, creates a number of offences relating to public sanitation and safe disposal of waste and 'refuse'.

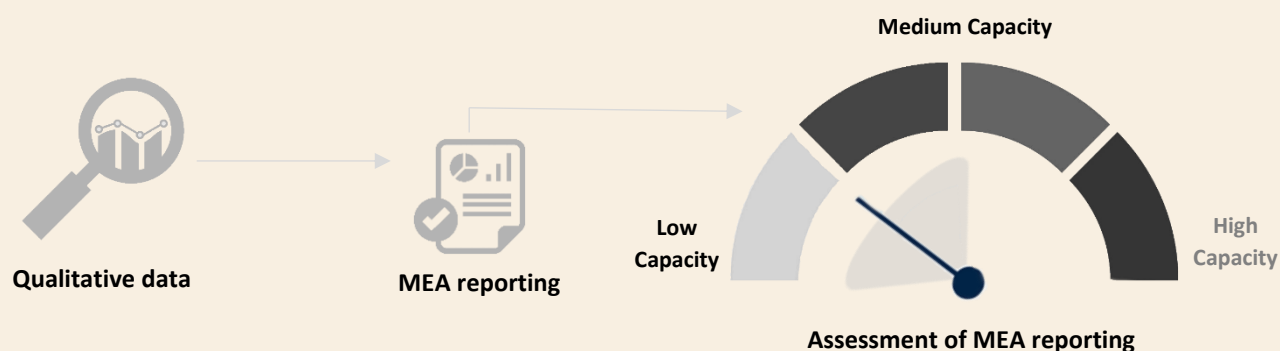
These offences are subject to minor fines. Representative offences include:

- requirements around transporting refuse, subject to a fine of up to K100 (r 4),
- requirements to keep premises clean and free from stagnant water, decomposing organic fluid or solid matter, subject to a fine of up to K100 (r 9), and
- littering offences e.g. deposit of refuse in a public place, subject to a fine of up to K100 (r 14).

While these offences exist 'on the books', that there appears to be very limited enforcement. The offences under the *Public Health Act* and its regulations are largely outdated. The enforcement model under the legislation needs to be updated to target contemporary waste management practices more directly.

In addition to the existing compliance and enforcement regime, some thought might be given to building capacity for a more targeted compliance and enforcement model (or other forms of incentive) for waste management related to areas where economic recovery might be feasible, such as recyclables and e-waste.

MEA reporting



Papua New Guinea is party to the Basel, Stockholm, and Waigani Conventions. The notification, information sharing and reporting requirements established by these MEAs for parties. Papua New Guinea has submitted only one report under the Basel Convention (in 2004) and no reports under the Stockholm and Waigani Conventions. Based on the evidence available, PNG's capacity to report under relevant MEAs to which it is party is assessed as low-to-medium.

Papua New Guinea's *Environment Act 2000*, administered by CEPA, is the principal legislation for implementation of its obligations under relevant MEAs. One of the objects of the legislation is 'to provide a means for carrying into effect obligations under any international treaty or convention relating to the environment to which Papua New Guinea is a party' (s 4(j)).

Section 133(2) of the *Environment Act* provides that 'regulations may prescribe in relation to environmental contaminants (c) restrictions on and conditions applying to the importation, exportation ... of hazardous contaminants'. It appears that the only relevant import/export restrictions, contained in the Environment (Prescribed Activities) Regulation 2002, concern ozone depleting substances and pesticides, which require environmental permits.

The *Environment (Registration of Contaminants and Hazardous Contaminants) Regulation 2011* list all substances in Annex A, Annex B and Annex C of the Stockholm Convention and all hazardous wastes listed in Annexes to the Basel and Waigani Conventions as hazardous contaminants. Under the auspices of the *Customs Act 1951*, the *Customs (Prohibited Imports) Regulation 1973* provides that the import of radioactive substances (but not radioactive or hazardous waste more generally), or irradiating apparatus, requires the permission of the Minister or a person authorised by the Minister.

It is likely that Papua New Guinea's present lack of reporting under the Basel, Stockholm and Waigani Conventions is linked to a lack of personnel and technical and other capacity to support this activity, as well as limited supporting legislative frameworks. PNG developed a National Implementation Plan (NIP) in 2004 (which was submitted in 2008) for its obligations under the Stockholm Convention. The NIP included an Action Plan for Monitoring and Reporting, but financial constraints were noted as a barrier to implementation. Papua New Guinea is in the process of finalising an updated NIP under a GEF funded project. In conferences of the parties' meetings under the Waigani Convention, PNG has put forward requests for assistance in developing legislation to meet its obligations under the Convention. These gaps may potentially be remedied if recommendations for Papua New Guinea to develop specific waste legislation proceed. PNG's participation in a project with UNEP in support of the country's membership of the Basel and Stockholm Conventions offers the opportunity to strengthen the country's institutional framework and national capacity for implementing these conventions, including their reporting requirements. The focus of the UNEP project is on development of a national policy and legislative framework for wastes and chemicals management and improving coordination across different stakeholders involved in waste management in Papua New Guinea. PNG has also undertaken an initial assessment under the Minamata Convention with funding assistance from the GEF and UNEP. The assessment report is not online but a copy was obtained in-country from contacts there.

Although Papua New Guinea is not presently a party to the Minamata Convention, this assessment is designed to facilitate potential ratification and implementation of the MEA.

Table 7: Compliance with MEA reporting requirements

Relevant MEAs party to	Comments
<i>Basel</i>	Competent authority/focal point designated. National report submitted for 2004 but no reports submitted since.
<i>Stockholm</i>	Official contact point/National focal point designated. National Implementation Plan (NIP) developed in 2004, finalised in 2008 and transmitted to Secretariat in 2013. Includes Action Plan for Monitoring and Reporting but notes financial constraints on implementation. PNG is reported to have finalised an updated NIP (GEF funded project). No reports submitted in first four reporting cycles.
<i>Waigani</i>	Competent authority and focal point designated (updated 18 Jun 2014). No national reports submitted. Appears to be based on lack of resources to support reporting. PNG has put requests to COP at previous meetings for assistance in developing legislation to meet its obligations under the Convention.

SECTION 4: LEGISLATIVE OPPORTUNITIES



The opportunities identified in this section have been drawn from the findings of the legislative assessment and capacity assessment to provide guidance to Papua New Guinea on possible actions they may wish to take to strengthen the legislative frameworks governing waste management

Legislative models for waste governance

Waste management has become a pressing concern for the PacWastePlus participating countries. These nations are impacted by growing levels of hazardous and non-hazardous wastes, which cause environmental pollution, and may threaten human health. The mounting levels of waste place socio-economic burdens on these nations and may pose risks to important cultural values and customary land ownership that distinguish these countries and the region. Internationally, Goal 12 of the 2015 United Nations Sustainable Development Goals calls for ensuring sustainable consumption and production patterns.

Trends in waste governance across the participating countries

Waste is a particular problem for many Pacific region countries due to increasing imports of waste-producing items (such as electronic and consumer goods), limited in-country facilities for collection, treatment and storage of many wastes, and a reduced availability of suitable land for conventional waste disposal methods, such as landfills.

In several cases, participating countries have adopted innovative legislation and instruments to better manage and minimise waste, such as: dedicated legislation for waste management, measures to incentivise recovery and recycling, prohibitions on specific waste-generating items entering the country, and measures to promote waste minimisation and cost recovery. Several Pacific countries are also exploring new institutional arrangements, such as identifying lead agency responsibilities for coordination of waste management laws, arrangements for more effectively managing responsibilities across different levels of government, and/or approaches to increase private sector involvement in waste management through licencing regimes and partnerships for extended producer responsibility.

Many countries in the Pacific adopted applicable laws and institutional structures for managing wastes some time ago that may no longer serve current needs. Significant challenges remain in some nations in establishing a firm economic basis to underpin waste management within the relevant legal frameworks, and in dealing with longstanding waste management issues, such as the sorting of wastes and their diversion, where possible, from landfill.

Increasing attention is being directed to questions of how to promote effective implementation of existing laws and to the development of new legislation and regulation for waste management if this is required. This raises critical issues for resourcing of various components of the waste management cycle within each nation, as well as the possibilities for regionally harmonised approaches. A range of ancillary legislation beyond specific waste management laws may be important for facilitating implementation, and there is a need in some participating countries to develop more coherent cross-agency referral models.

Compliance with, and enforcement of, waste management laws is also vital to their effectiveness and impact. At the same time, these measures must be sensitive to the community context, realistic in terms of the available staffing and technical expertise in government departments and municipal organisations, and cognisant of the competing compliance priorities in the legal system. There is scope within the legislation of several participating countries to widen the range of compliance and enforcement measures beyond monetary penalties and criminal prosecutions.

In addition, there are opportunities to broaden the engagement with communities and the non-governmental sector, and to provide a legislative basis or more formal designation for measures such as community education, consultation and partnerships in managing wastes, particularly those of a non-hazardous nature. The participation of the private sector, whether as waste collector contractors, operators of recycling companies, sewage transporters or tourism agents, is likewise important for effective waste management laws. Regulation needs to be carefully targeted but also to ensure transparency and accountability.

Key recommendations to increase national legislative and institutional capacity

Overall, the existing legislation of Papua New Guinea for waste governance was assessed as performing at a medium. The capacity of Papua New Guinea to administer its waste legislative framework was assessed as medium, with the greatest needs arising in respect of support for implementation, compliance, and enforcement of laws.

Responsibilities for waste and environmental management exist within a range of Papua New Guinea legislation and regulations, but no single point of control exists to regulate waste management, planning and operation. The *Environment Act 2000* and later amendments confer wide powers to manage the environment sustainably, in line with Constitutional protections for the environment instituted by development control and pollution control provisions. Waste is identified as an area governed under the legislation. The central legislation governing waste management adopts an environmental protection and EIA/development regulatory model.

The *Public Health Act* has provisions relating to environmental health and disease control measures. Ancillary legislation, such as the *Customs Act 1951*, plays a supportive role in implementing environmental protection and waste-related measures. In the Port Moresby region, the *National Capital District Commission Act 2001* is of central importance to waste management, particularly at an operational level.

Opportunities for improving legislative instruments to support improved waste management

The following is provided to assist to identify any gaps in Papua New Guinea's existing waste-related laws and opportunities to develop or implement additional instruments:

- An audit conducted by the Office of the Auditor-General of PNG in 2010 included a specific recommendation that the Department of Environment and Conservation consider formulating consolidated solid waste management legislation that deals with the management of solid waste in PNG. Consideration could be given to adopting and implementing this recommendation while, at the same time, extending the range of wastes that are included. Various priority waste streams, such as bulky waste and e-waste, could be specifically covered, and the legislation could look to include specialised regulations for wastes requiring technical handling requirements, such as asbestos wastes.
- There are opportunities to adopt more regular review and audit measures, and to set indicators that can assist in measuring improvement in waste outcomes.
- The PNG government has identified the need for policies and strategies to implement its commitments under relevant MEAs more fully, and there may be opportunities to strengthen incorporation of these obligations in respect of waste management handling, transport and tracking within domestic laws.
- It would assist the management of asbestos within the country to have clearly specified legislative and regulatory powers to deal with the removal and disposal of asbestos at a national, NCDC and provincial government level. PNG may wish to consider the utility of a prohibition on asbestos products and building materials entering the country under the customs legislation.
- In relation to other consumer goods entering the country, there may be opportunities to incorporate more extensive producer responsibility schemes in relation to waste items, such as those that give rise to bulky waste and e-waste, that could be implemented at the customs point. PNG may wish to explore whether there may be opportunities to participate in regional initiatives for export of waste, especially hazardous wastes that require specialised treatment facilities.
- The extension of re-use models for waste could be given legislative support or be adopted in specific regulation under the *Environment Act*, with a devolution to the municipal and provincial levels under a delegation of powers. Section 31 of the *Environment Act* provides for Environmental Policies that include waste management or minimisation and this legislative tool could be used to work towards a more coordinated approach.

- There are opportunities to divert more e-waste from landfill. Initiatives to support recovery could be more clearly supported in regulation or a code, with guiding principles at a national or municipal level. There could be legislative support for building private sector involvement and community support (e.g. for separating wastes and/ or not taking them to landfill). It is noted that such initiatives will require a facility for recycling and relevant staffing, or capacity to contract out the operation of the facility to the private sector, with appropriate regulatory oversight. A similar model might be considered for other recyclables, although interview data indicated the reduced export markets for certain types of wastes e.g. PET bottles may limit its wider application.
- The regulation of e-waste is not clearly captured within the legal framework, either in terms of its effective collection and disposal, or its potential for recycling or recovery. It is likely to be a major component of metal-based recycling which operates in the capital. Given that this waste stream is likely to expand in the future, and to be a potential source of revenue to support waste management, consideration could be given to adopting a dedicated regulation under the *Environment Act* or, in the future, amendments to the *Environment Act* to provide a specific Part dealing with wastes, including e-waste.
- There are reviews underway of two pieces of legislation relevant to priority waste streams (the *Public Health Act*, and the *Poisons and Dangerous Substances Act*). Depending on the outcome of these reviews, consideration could be given to amendments for more direct inclusion of healthcare waste management in the *Public Health Act*, with cross referral to any amended *Poisons and Dangerous Substances Act*. Alternatively, certain efficiencies may be gained from a stand-alone regulation governing the streaming of healthcare wastes (from medical clinics, hospitals, and other sources such as pathology laboratories), and protocols for their proper handling, storage, and disposal. Interview data indicated that, in respect of healthcare waste, there were gaps in its coverage in relevant legislation, such as the *NCDC Act*, given that in practice there was often joint management of such wastes.
- Consideration could be given to developing regulations to govern expired pharmaceuticals and other healthcare wastes, as well as other potential pollutants of waterways and groundwater, such as hormones and microplastics
- PNG may wish to consider broadening the legislative support given to community-awareness waste management programs across all levels of government. These programs could support initiatives in plastic wastes and assist in the better separation of waste streams.
- The *Public Health (Sanitation and General) Regulation* would benefit from a review to address issues like those described below:
 - Under section 42, requires occupiers of premises to cause all refuse that can be readily destroyed by fire to be so destroyed daily. All refuse not destroyed by fire shall be deposited daily in refuse bins. It is not clear that this provision is regularly enforced,
 - Other sections in the regulation provide for an offence for undue 'pollution' to be released from incinerators that burn refuse. The general issues of burning waste, e.g., PET bottles, may be given attention under the *Public Health Act* or the *Environment Act* as a form of environmental harm, given potential release of toxins and air quality impacts.

Recommendations to address legislative capacity needs

- **Governance**
 - Introducing enhanced processes for review, revision and consolidation of existing laws related to waste, coupled with developing approaches to streamline waste management laws and to address regulatory gaps.

- Development of a stronger interagency profile for, and coordination of, waste management laws, with assessment of feasibility of the incorporation of user-pays for expanding waste collection and streaming, and potential expansion of economic, income-generation models for recyclables, e-waste, and bulky waste.
 - Development of a stronger interagency profile, and increased staffing, for compliance and the enforcement of waste related laws, coupled with ongoing capacity development programs for staff. This may also support the fulfilment of reporting requirements under the Basel, Stockholm, and Waigani Conventions.
- **Support, training, and capacity building**
 - Additional support and training on legal drafting models to develop integrated approaches to waste management, especially in solid waste categories, with clear authorisations and responsibilities for waste management to be specified under laws. There are needs at a provincial government level.
 - Additional support for developing targeted waste laws in specific areas, such as e-waste, asbestos and chemical waste regulation, including access to technical expertise, noting ongoing review of the *Poisons and Dangerous Substances Act*.
 - Additional support for review and updating of the compliance and enforcement model under the *Public Health Act* to better target contemporary waste management practices, including healthcare waste streaming, safe handling, and disposal, noting ongoing review of this legislation.
- **Sustainable Funding**
 - Additional resourcing of waste management laws, perhaps involving incorporation of user-pays/ economic income generation models.
 - Building incentives for greater private sector involvement in waste management, for example, in recycling and e-waste to build implementation capacity, subject to identification of suitable and accessible export markets for recyclables and e-waste, and possible participation in regional initiatives.
 - Enhanced support for landfill and community waste streaming, especially at the provincial and local levels, with funding to extend beyond waste collection measures to include community-awareness and waste minimisation programs.
- **Enforcement**
 - Increased staffing for compliance and enforcement, coupled with ongoing capacity development programs for staff.
 - Development of a more targeted compliance and enforcement model (and incentives) for waste management related to areas where economic recovery might be feasible, e.g., recyclables, bulky wastes, and e-waste, supported by increased staffing and capacity development programs.
 - Expansion of waste minimisation measures, such as prohibitions at the customs point, combined with greater use of extended producer responsibility measures, such as advance disposal fees or levies.
 - Review of offence provisions that require technical expertise and extensive scientific evidence to establish contraventions.
 - Better targeting of the compliance regime to support waste recovery operations, in addition to the existing pollution focus.
 - Review and updating of the enforcement model under the *Public Health Act* to target contemporary waste management practices.
 - Support for development of a more targeted compliance and enforcement model for waste management areas where economic recovery might be feasible, e.g., recyclables and e-waste.

Annex 1: Glossary of legal terms

Table 8: Glossary of legal terms

Term	Definition
<i>Accession</i>	Accession is the act by which a country accepts the offer or the opportunity to become a party to a convention already signed by other states. It has the same legal effect as ratification.
<i>Acts</i>	Also called statutes or laws. An Act is a document stating the law that has been passed by the legislature (the law-making body of government).
<i>Acts as made</i>	Also called Acts as passed, Acts as enacted, and Sessional Acts. An 'Act as made' is an Act with its contents exactly as they were when passed by the legislature.
<i>Amending Acts</i>	Amending Acts are Acts that change one or more provisions of the Principal Act, often titled, for example, as the Environment Protection (Amendment) Act. Amending Acts must also be passed by Parliament. Where amendments have not been included in the Principal Act, the Principal Act and the Amending Acts must be read together.
<i>Bills</i>	Proposed Acts. Once passed by the legislature and enacted by any formalities required in the country (for example, signature, assent, publication, or notification in the official Gazette), a bill becomes an Act.
<i>Chapter</i>	Some countries consolidate all their Acts at the same time. For example, Tonga consolidated all its legislation (both Acts and Regulations) in 2016. Each Act in the Consolidation was given a Chapter number, so the front cover of an Act in this consolidation states e.g., <i>Environment Management Act, Chapter 47.02, 2016 Revised Edition</i> . The Act as made was the <i>Environment Management Act, Act 27 of 2010</i> . 'Chapter' is often abbreviated to Cap. An Act made after the Consolidation will not have a chapter number.
<i>Code</i>	<p>Several countries are former U.S. territories and arrange legislation into Codes. Such Codes contain all the Acts enacted by the legislature that are current (in force) at the time of the compilation of the Code.</p> <p>Codes are arranged by numbered topic. Each topic is called a Title. As each Principal Act is made it is assigned to a Title. The Act may become a chapter in that Title or only a single new section in an existing chapter, or it may amend an existing chapter or section.</p> <p>Example: in the Marshall Islands, all environmental Acts are contained in Title 35: Environment. Chapter 2 of this Title is the <i>Littering Act 1982</i>. This is abbreviated to 35 MIRC Ch 2 i.e. Title 35 (Environment), Marshall Islands Revised Code, Chapter 2.</p> <p>Once in the Code the section numbers in an Act change because the Code numbering is consecutive. So, what was section 1 in the Act as made becomes section 201 in the Code i.e.: Chapter 2, section 1. Sections are generally denoted in Codes by the symbol §, as in U.S. legislation.</p>
<i>Consolidated Acts</i>	Comprise the Act as made and all amendments up to the date of the consolidation. For example, a 2012 consolidation of an Act originally made in 1999 will include all amendments up until 2012. They may also be known as consolidations or compilations or noted 'as amended'.
<i>Executive</i>	The Executive or the Government, is the branch which implements laws through the making of regulations and administers and enforces the laws. The Executive is also generally the branch of government that signs and ratifies international conventions.
<i>Judiciary</i>	Also, the Courts, the branch of government which interprets laws and formally determines legal disputes.
<i>Legislation</i>	The collective term for both principal (Acts) and subordinate laws (usually regulations).
<i>Legislature</i>	The Legislature or the Parliament, is the branch of government which makes laws.

Term	Definition
<i>International conventions</i>	<p>Are also known as international agreements, and treaties. Conventions come into effect on a certain date. This is not the date the Convention takes effect in a particular country. For the Convention to take effect in a particular country, the country must become a party to the Convention. Countries may sign a Convention – this does not make it a party. Countries may ratify or accede to a Convention – this makes it a party. Following ratification or accession, written instruments evidencing the country’s consent to be bound by the convention are deposited with the Depository – this is generally the Secretary-General of the United Nations, but also, for example, the South Pacific Forum Secretariat in the case of the Waigani Convention. Once these written instruments are deposited by enough parties, the convention takes or comes into effect in the country and the country becomes a party to the convention.</p>
<i>Principal Acts</i>	<p>Principal Acts contain the entirety of a topic, for example, the Environment Protection Act.</p>
<i>Provisions</i>	<p>Provisions are individual numbered clauses within legislation. The most used provision types are:</p> <ol style="list-style-type: none"> a. Articles in Constitutions – abbreviated to Art. or art. b. Sections in Acts – abbreviated to s (or § in the case of Codes) c. Regulations within a Regulation - abbreviated to r d. Clauses in Schedules at the end of Acts or subordinate legislation
<i>Ratification</i>	<p>Ratification is the act by which a country indicates its consent to be bound to a convention.</p>
<i>Subordinate legislation</i>	<p>Subordinate legislation is also called subsidiary legislation, delegated legislation, and statutory instruments. These are collective terms. Individual pieces of subordinate legislation are most called regulations, but other types of subordination legislation include:</p> <ul style="list-style-type: none"> • Rules • Ordinances • By-laws • Orders-in-council • Executive orders • Decrees • Decree-Laws (this terminology is used in Timor-Leste) <p>Acts (principal legislation) expressly authorise the making of subordinate legislation.</p> <p>Example: Section 121 of the Marshall Islands <i>National Environmental Protection Act 1984</i> authorises the Environment Protection Authority to make regulations regarding pollutants and discharge or hazardous waste.</p> <p>Subordinate legislation is made by a person or agency other than the legislature – usually the Government Ministry or Department responsible for implementing the Act. A regulation is usually on a specific topic and contains the practical machinery to implement one or more provisions of the Act.</p> <p>Example: regulations made under Section 121 of the Marshall Islands <i>National Environmental Protection Act 1984</i> include the <i>Solid Waste Regulation 1989</i>, the <i>Toilet Facilities and Sewage Disposal Regulation 1990</i>, and the <i>Public Water Supply Regulation 1994</i>.</p>

Annex 2: Acronyms

Table 9: Acronyms

ACRONYM	REFERRING TO
DAC	Development Assessment Committee
ECOLEX	ECOLEX is an information service on environmental law, operated jointly by FAO, IUCN and UNEP
EIA	Environmental Impact Assessment
EU	European Union
FAOLEX	FAOLEX is a database of national legislation, policies and bilateral agreements on food, agriculture and natural resources management.
ICI	Infrastructure Cook Islands
IEA	Island Environment Authority
INFORMEA	United Nations Information Portal on Multilateral Environmental Agreements
MEA	Multilateral Environmental Agreements
MOH	Ministry of Health
NES	National Environment Service
NIP	National Implementation Plan
NGO	Non-Government Organisation
NZPCO	New Zealand Parliamentary Council Office
OECD	The Organisation for Economic Co-operation and Development
PACLII	Pacific Islands Legal Information Institute
PILON	Pacific Islands Law Officers' Network
POPS	Persistent Organic Pollutants
SPREP	Secretariat of the Pacific Regional Environment Programme
UOM	University of Melbourne
UNEP	United Nations Environment Program

Annex 3: Priority Waste Definitions

The PacWastePlus definitions of the priority waste streams included in the programme are detailed below.

Please note, PacWastePlus programme's waste definitions *do not always directly correspond with definitions found in national legislation*.

For example, public health and water/sanitation legislation may reference 'sewage' within concepts of wastewater or broader definitions of solid waste. Where countries' legislation dealing with wastewater or other waste streams includes sewage in the legislative definitions of wastes, these references have been retained for this assessment. This ensures that of the assessment's reproduction of the legislative provisions are accurate, even though human wastes are not encompassed within the PacWastePlus definition of 'wastewater'.

Table 10: PacWastePlus programme definitions

Priority waste	Definition/understanding
<i>Asbestos</i>	Asbestos refers to six naturally occurring silicate minerals composing of long and thin fibrous crystals. These crystals contain many microscopic fibres that can be released into the atmosphere by abrasion and other processes. Asbestos has been used as a building material for many years. Natural disasters can increase the risk of exposure to asbestos found in damaged building materials.
<i>Healthcare waste</i>	Waste generated by health care facilities. Includes used needles and syringes, soiled dressings, body parts, diagnostic samples, blood, chemicals, pharmaceuticals, medical devices, and radioactive materials. It is essential that all medical waste materials are segregated at the point of generation, appropriately treated, and disposed of safely.
<i>E-waste</i>	Electronic waste or e-waste refers to discarded electrical or electronic devices. Used electronics which are destined for refurbishment, reuse, resale, material recovery, or disposal are also considered e-waste. Electronic scrap components, such as CPUs, contain potentially harmful materials such as lead, cadmium, beryllium, or brominated flame retardants.
<i>Organic waste</i>	Organic waste is waste that is biodegradable and has the potential to disintegrate. These wastes often include vegetable and fruit peelings, paper, and food waste. Organic waste is typically a significant proportion of a waste stream, and if managed through landfill creates leachate and harmful greenhouse gases. When processed appropriately, organic waste can add significant value to soil quality and potentially increase food production/soil water retention and help in elimination of invasive weeds.
<i>Disaster waste</i>	The generated waste during a natural disaster i.e. a sudden devastating event (cyclone, flood, earthquake, tsunami, fire etc) that seriously disrupts the functioning of a community or society and causes human, material, economic or environmental losses that exceed the community's or society's ability to cope using its own resources.
<i>Recyclables</i>	Recyclable wastes refer to wastes that can easily be recovered or made into other products. They typically include glass, paper, cardboard, metal, plastic, tyres, textiles, batteries, and electronics.
<i>Bulky waste</i>	Bulky waste (end-of-life vehicles, tyres, white goods, furniture, and other large household goods) describes waste items that are too large to be accepted by the regular waste collection service. It includes damaged furniture, abandoned vehicles and large appliances.
<i>Wastewater</i>	Wastewater refers to waterways impacted by solid wastes and related aspects, such as leachates from landfills or point source pollution from storm water drains.
<i>Plastic waste</i>	Plastic wastes may be recyclable wastes as discussed above. Plastic packaging and single-use plastics may also be a significant source of plastic waste.

Annex 4: Existing Legislation Addressing Waste Management

A summary of existing Cook Islands legislation related to waste management is provided in **Table 11**.

Table 11: Legislation impacting waste governance in Papua New Guinea

Legislation	Regulations	Description
<u><i>Environment Act 2000 (as at 2006)</i></u>	<u>Environment (Water Quality Criteria) Regulation 2002</u> (commenced 2004)	The <i>Environment Act 2000</i> empowers provincial and local governments to develop environmental legislation, policies, and by-laws for waste management. The legislation also requires the development of national policies and a national solid waste management strategy, with associated regulations.
<u><i>Environment (Amendment) Act 2010</i></u>	<u>Environment (Prescribed Activities) Regulation 2002</u> (commenced 2004)	Section 17 establishes an Environmental Council, with one member required to have experience in waste minimisation/management of environmental impacts. Other members of the Environmental Council consist of the Director of Environment, ex-officio (or his delegate), as the Chairman and three persons of good standing in the community with tertiary qualifications and professional expertise respectively in the fields of environmental policy or law, conservation, and maintenance of ecosystems and their biodiversity, and socio-economics and social impact assessment.
<u><i>Environment (Amendment) Act 2012</i></u>	Environment (Prescribed Activities) (Amendment) Regulation 2011 (commenced 2011)	The members of the Environmental Council are appointed by the National Executive Council by notice in the National Gazette from a list of not less than 10 persons submitted by a Committee comprised of the Departmental Head of the Department of Attorney-General, the Director of Environment, the President of the Papua New Guinea Council of Churches, the President of the Business Council of Papua New Guinea, and a person nominated by the National Alliance of Non-Governmental Organizations.
<u><i>Environment (Amendment) Act 2014</i></u>	<u>Environment (Ban on Non-Biodegradable Plastic Shopping Bags) Policy 2009</u>	The central measures for environmental protection in the <i>Environment Act</i> are the national Environmental Policies that function as overarching ‘standards’ against which various ‘uses’ of the environment are assessed. Under section 36, ‘on approval of an Environment Policy, all governmental authorities which may be required to issue approvals relating to a use of the environment or an element or segment of the environment which is affected by the policy must give effect to the Policy’.
<u><i>Environment (Amendment) Act 2015</i></u>	Environment (Permits) Regulation 2002	
	Environment (Ozone Depleting Substances) Regulation 2007	There is provision for an Environmental Policy for Waste Management and Waste Minimisation (s 31(f)) and Litter (s 31(j)). There is also provision for Provincial Environment Policies that cover wastes and litter.
	Environment (Control of Biodegradable Plastic Shopping Bags)	Organic waste may be regulated under the <i>Environment Act 2000</i> , if it is harmful to the environment or regarded as litter, but more generally it may not be captured under this law. Under the <i>Environment Act</i> , a Provincial Government may make a Provincial Environment Policy relating to litter, hygiene, and sanitation; or such other matters as are within the law-making

Legislation	Regulations	Description
<u>Public Health Act 1973 (as at 1973)</u> <u>Public Health (Amendment) Act 2015</u>	Regulation 2011 (commenced 2011) Environment (Registration of Contaminants and Hazardous Contaminants) Regulation 2011 (commenced 2011)	<p>capacity of Provincial Governments under the Organic Law on Provincial Governments and Local-level Governments. These laws could cover organic wastes.</p> <p>The national environmental legislation, through regulations, can enable (or delegate to) other levels of government to enact by-laws and regulations. If there is no supporting regulation in place, it will constrain the ability of other levels of government to implement the laws effectively.</p>
	<u>Public Health (Sanitation and General) Regulation 1973</u> <u>Public Health (Sewerage) Regulation 1973</u> <u>Public Health (Septic Tanks) Regulation 1973</u>	<p>Like much conventional public health legislation, the powers of the authorities relevant to waste largely relate to powers of entry and inspection of buildings and to controls over infectious materials and persons. The Public Health (Sanitation and General) Regulation 1973, amongst other matters, provides for controls over nuisances. To this extent, there are indirect powers to govern healthcare waste. The Act also has provisions which relate to practices of waste disposal, as well as fines for illegal dumping. The latter provisions appear not to be regularly enforced (see further the discussion of effectiveness and impact below).</p> <p>The Public Health (Sanitation and General) Regulation 1973 provides that the Minister (of Health) may establish a refuse depot for every town or area to which the relevant part of the regulation applies and must provide for the removal and disposal of refuse. PNG has approximately 20 unregulated dump sites and two regulated landfill sites located in Lae and Port Moresby. These powers to establish dumps and landfills for the disposal of refuse would appear to cover organic waste where it forms a component of waste collected and/or deposited at the landfills and dumps.</p> <p>The NCDC works in association with the Ministry of Health in managing landfills and thus regulates organic waste disposed to landfill. More generally, the Organic Law on Provincial and Local Level Governments empowers provincial and local governments to formulate waste management policies, legislation, and by-laws which govern solid waste, inclusive of organic waste.</p> <p>The <i>Public Health Act 1973</i> has controls over wastewater discharges, which are governed by the Public Health (Sanitation and General) Regulation 1973, the Public Health (Sewerage) Regulation 1973 and the Public Health (Septic Tanks) Regulation 1973.</p> <p>Where wastewater impacts waterways, or causes forms of environmental harm, it may fall within the general waste management provisions under the <i>Environment Act</i>. Part 7 of the legislation deals with water. Permits granted under this Part include conditions that authorise the holder to: release water or contaminants into any water; or release water containing contaminants onto land or into ground in circumstances that result in the contaminants, or other contaminants emanating as a result of process from the contaminants, entering the water (s 78).</p>

Legislation	Regulations	Description
<u>National Water Supply and Sanitation Act 2016</u>	National Water Supply and Sewerage Regulation 1982	This Act establishes the Water Papua New Guinea Limited a Company, defines its duties, and powers and provides with respect to its administration and operation. The Act also makes provision with respect to water supply and sanitation in general. The Company is tasked to secure and provide an adequate supply of water in accordance with this Act. No nexus to waste management other than with sanitation/wastewater.
<u>Customs Act 1951 (as at 2005)</u> <u>Customs (Amendment) Act 2009</u> <u>Customs (Amendment) Act 2014</u>	<u>Customs (Prohibited Imports) Regulation 1973 (as at approx. 2009)</u> Customs (Prohibited Imports) (Pesticides) Regulation 1993 Customs (Prohibited Imports) (Plastic Shopping Bags) Regulation 2009 and Customs (Prohibited Imports) Plastic Shopping Bags (Amendment) Regulation 2011	Ancillary legislation, such as the <i>Customs Act 1951</i> , plays a supportive role in enabling the implementation of various environmental protection and waste-related measures. In the Port Moresby region, the <i>National Capital District Commission Act 2001</i> is of central importance to waste management, particularly at an operational level. Regulations under the <i>Customs Act</i> prohibit the import of plastic shopping bags defined as 'being any of the substances defined as all High-Density Polyethylene (HDPE) plastic bags with or without handles used or provided at the point of sales, used as carrying or transporting of retail or wholesale goods including: (a) HDPE carry bags; and (b) Vegetable or tear-off bags; and (c) Food bags (used at Kai Bars)'. An earlier regulation, the Environment (Control of Biodegradable Plastic Shopping Bags) Regulation 2011, controls the manufacture and importation of biodegradable plastic bags through the issuance of an environment permit. Bags are required to be labelled and must meet the standards of the Department of Environment and Conservation.
<u>National Capital District Commission Act 2001 (numerous amendments, including in 2004, 2006, 2007, 2008 and 2009)</u>	None identified.	Ancillary legislation, such as the <i>Customs Act 1951</i> , plays a supportive role in enabling the implementation of various environmental protection and waste-related measures. In the Port Moresby region, the National Capital District Commission Act 2001 is of central importance to waste management, particularly at an operational level. The <i>National Capital District Commission Act 2001 (NCDC Act)</i> , which provides for public welfare protection in relation to waste and environmental management, is relevant to healthcare waste. The primary responsibility for healthcare waste fell under the Ministry of Health, but that the two organisations (MoH and NCDC) often collaborated on its management.
<u>Local-Level Governments Administration Act 1997 (as at 2005)</u>	None identified.	Being an Act to implement the <i>Organic Law on Provincial Governments and Local-level Governments</i> insofar as an Act of the Parliament is required to make provision for a system of Local-level Governments and for their administration. (see below)

Legislation	Regulations	Description
<u><i>Organic Law on Provincial Governments and Local-level Governments (as at 2014)</i></u>	None identified.	The Provincial Governments have general waste management responsibilities like the NCDC.
<u><i>Conservation and Environment Protection Authority Act 2014</i></u> <u><i>Conservation and Environment Protection Authority (Amendment) Act 2019</i></u>	None identified.	Section 46 of the <i>Conservation and Environment Protection Authority Act 2014</i> (CEPA Act) provides for the institution of proceedings by the Conservation and Environmental Protection Authority (CEPA) in consultation with the public prosecutor for offences against the <i>CEPA Act</i> or any other environmental conservation law. The section specifies in which courts actions can commence. There are very few actions taken in the PNG courts to compel compliance with waste laws.
<u><i>Industrial Safety, Health and Welfare Act 1961</i></u>	<u><i>Industrial Safety, Health and Welfare Regulation 1965</i></u> <u><i>Industrial Safety (Building Works) Order 1967</i></u>	Asbestos potentially could be regulated under several pieces of PNG legislation, including under the NCDC Act and provincial or local government laws. The only relevant, direct reference to asbestos nationally is in the Industrial Safety (Building Works) Order 1967 (s 53), which requires warnings to be placed on asbestos sheeting.
<u><i>Oil and Gas Act 1998 (as amended)</i></u>	Oil and Gas Regulation 2002	Comprehensive legislation governing the exploration for and production of petroleum (including oil and gas) in Papua New Guinea, including the offshore area, and the grant to traditional landowners and Provincial Governments and Local-level Governments of benefits arising from projects to produce petroleum (including oil and gas), and the processing and transportation in Papua New Guinea of petroleum and petroleum products. This act <u>does</u> address waste from oil field production, e.g., oil muds, brines, fuel, etc.
<u><i>National Health Administration Act 1997</i></u>	None identified.	The National Health Administration Act 1997 is also relevant as framework legislation governing areas such as health administration, health plans and the setting of health standards. The Act identifies functions for provincial and local governments in health administration and provides for law-making powers for provincial governments in this field. At a

Legislation	Regulations	Description
		general level, these frameworks would cover healthcare wastes. Interview data indicated that medical (or healthcare) waste, especially in liquid form, may also be regulated under the Poisons and Dangerous Substances Act 1952.
<u>Poisons and Dangerous Substances Act 1952</u>	None identified.	An Act relating to the control, sale and use of poisons, drugs and dangerous substances and articles used in medicine and surgery.
<u>Food Sanitation Act 1991</u>	Food Sanitation Regulations	an Act for securing wholesome, sound, and safe food for human consumption.
<u>Disaster Management Act 1984</u>	None identified.	The National Disaster Centre has a remit to provide the necessary and appropriate disaster management services to the people of PNG and the Community Government Liaison section handles rapid response and operations. It is likely that such response and operational responsibilities would extend to preparing for waste management in a disaster context.

Annex 5: MEA Reporting

Reporting requirements under relevant MEAs

The relevant MEAs for the PacWastePlus project are:

- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention);
- Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention);
- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention);
- Minamata Convention on Mercury (Minamata Convention); and
- Convention to ban the Importation of Hazardous and Radioactive Wastes into Forum Island Countries and to Control the Transboundary Movement and Management of Hazardous Waste within the South Pacific Region (Waigani Convention).

These MEAs establish requirements for countries which are party to them to provide certain notifications, share information and produce national reports on their implementation of the conventions. **Table 12** below summarises the key notification, information and reporting requirements for each of the relevant MEAs.

Based on the information summarised in Table 3, compliance with these requirements was coded on a five-point scale (with 0 as no data), as follows:

- **5** – high compliance, e.g. all or majority of national reports provided, relevant national authorities designated and updated, all necessary notifications and information provided.
- **4** – medium-to-high compliance, e.g. most national reports provided, relevant national authorities designated, most notifications and information provided.
- **3** – medium compliance, e.g. some national reports provided, some national authorities designated, some notifications and information provided.
- **2** – low-to-medium compliance, e.g. few national reports provided, national authorities not designated or updated, few relevant notifications and information provided.
- **1** – low compliance, e.g. no evidence of national reporting, national authorities not designated, no notifications or information provided.

In some cases, the assessment of reporting compliance was preliminary, for instance, because a particular MEA only recently came into effect for a particular country. An average compliance score was calculated overall based on individual scores for different MEAs for each participating country. This data suggests that participating countries' level of compliance with reporting, information sharing and notification requirements under relevant MEAs tends to increase based on the number of those MEAs to which they are party, although it is noted this is a correlation only.

This trend may arise because countries are able to transfer learning and capacity developed for reporting and information exchange under one treaty to another related treaty. It may also reflect the fact that joining particular MEAs gives countries access to capacity building resources and support under those treaties that has a positive effect for their reporting compliance across other treaties they are party to.

Table 12: Notification, information sharing and reporting requirements of MEAs

MEA	OBJECTIVE	NOTIFICATION REQUIREMENTS	INFORMATION SHARING	REPORTING
Basel Convention	<p>To protect, by strict control, human health and the environment against the adverse effects which may result from the generation, management and transboundary movement of hazardous wastes and other wastes (preamble).</p> <p>Ban Amendment (in force 5 Dec 2019) prohibits all transboundary movements of hazardous wastes from OECD countries to developing country parties.</p>	<p>Parties must notify Secretariat of wastes considered hazardous under national legislation and update as appropriate (Art. 3)</p> <p>Obligation to designate one or more competent authorities (which receive notifications of movements of hazardous wastes) and one focal point (responsible for transmitting decision on import bans) (Art 5.1).</p>	<p>Provision of information to other parties on import bans (Art.4 and Art. 13).</p>	<p>Obligation for annual national reports (Art. 13(3)).</p>
Stockholm Convention	<p>Mindful of the precautionary approach, to protect human health and the environment from persistent organic pollutants (Art. 1).</p>	<p>Notifications to Secretariat for registration of specific exemptions for import/ export (Art. 4)</p> <p>Obligation to designate national focal point for information exchange Art. 9(3) –</p>	<p>Obligation to develop and transmit to Conference of Parties a national implementation plan (NIP), and to review and update plan, as appropriate, on a periodic basis (Art. 7).</p>	<p>Article 15 requires periodic reporting on national implementation measures. At the 1st Conference of the Parties it was decided that national reports should be submitted every four years).</p> <p>Four reporting cycles since convention entered into force (2006, 2010, 2014, 2018). Fourth report was required to be submitted by 31 Aug 2018.</p>

MEA	OBJECTIVE	NOTIFICATION REQUIREMENTS	INFORMATION SHARING	REPORTING
Rotterdam Convention	To promote shared responsibility and cooperative efforts among parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to their environmentally sound use, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to parties (Art. 1).	<p>Parties must designate one or more national authorities authorised to act on the country's behalf in performance of the administrative functions required by the Convention. These details are to be notified to the Secretariat no later than the date of entry into force of the Convention for that party and any changes are to be notified 'forthwith' (Art. 4).</p> <p>Parties required to notify the Secretariat of new or existing 'final regulatory actions' banning or severely restricting a chemical e.g. pesticide or industrial chemical regulated by the Convention (Art. 5).</p> <p>Notifications of export of listed chemicals (Art. 13).</p>	Obligations in respect of chemicals listed in Annex III, include notifications to the Secretariat of the country's proposed response for future imports (e.g. decision to prohibit, allow, allow with conditions). Should be accompanied by details of legislative or administrative measures on which it is based (Art. 10).	No specific requirement for national reporting.
Minamata Convention	To protect the human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds (Art. 1).	<p>Notifications regarding export of mercury (Art. 3).</p> <p>Requirement for designation of national focal point for information exchange and notifications under article 3 (Art. 17).</p>	Discretionary obligation, following an initial assessment, to develop implementation plan and transmit to Secretariat (Art. 21).	Obligation to report on measures taken for implementation (Art. 21). Pursuant to decision of COP MC-1/8 on the Timing and format of reporting by the parties (2017), reporting is on a biennial basis with short form every 2 years and long form every 4 years.

MEA	OBJECTIVE	NOTIFICATION REQUIREMENTS	INFORMATION SHARING	REPORTING
<p>Waigani Convention</p>	<p>To prohibit the importation of hazardous and radioactive wastes into Pacific Island developing countries and to facilitate environmentally sound management of such wastes (preamble).</p>	<p>Obligation to notify Secretariat of wastes considered/ defined as hazardous wastes under legislation beyond those listed in Annex I and inform of any significant changes (Art. 3).</p> <p>Must designate one competent authority and one focal point (Art. 5).</p> <p>Notifications of transboundary movements of hazardous wastes (Art. 6).</p>	<p>Obligation to forward to Secretariat information on any illegal hazardous wastes import activity in jurisdiction (Art. 4).</p> <p>Obligation to provide information to Secretariat on changes to competent authorities/ focal points or changes to national definitions of hazardous wastes (Art. 7).</p>	<p>Deadline for 1st biennial short report 31 Dec 2019, 1st long report 31 Dec 2021.</p> <p>Requirement to submit ‘such reports as COP may require’ regarding hazardous wastes generated in jurisdiction (Art. 4).</p> <p>At its Second Meeting in 2004, the COP agreed that Reporting and Transmission of Information forms should be filled out annually by parties and submitted to SPREP in its role as the Convention Secretariat. Parties were requested to begin reporting starting at the 2004 calendar year.</p>

Annex 6: Models and Concepts for Waste Management

There are a number of general models and concepts that inform contemporary waste management regulation and practice. These models often require quite significant supporting institutional and economic infrastructure that may not be in place or possible in many participating countries. Adopting these models may, therefore, be a long-term strategic goal rather than an immediate policy priority for nations.

The Waste Hierarchy

The generally accepted model for waste management that appears in the strategies of a number of countries in the Pacific region, is the 'waste hierarchy' model.

The aims of the hierarchy are:

- To generate as little waste as possible in the first place; and
- To extract the maximum practical benefit from the waste that is still produced.

The waste hierarchy suggests that as a priority order in waste management legislation and policy, governments should pursue waste avoidance, reduction (prevention or minimisation), re-use, recycling, and other recovery (e.g., waste-to-energy) (see **Figure 1**). The hierarchy dictates that the last option is disposal for end of life products.



Figure 1: Waste hierarchy (Creative Commons Licence BY-SA 3.0)

The Circular Economy

The 'circular economy' is also increasingly regarded as relevant to waste management legislation and policy. A 'circular economy' is one that values resources by keeping products and materials in use for as long as possible. This contrasts with a linear economy – take, make and dispose – approach. In waste management, this means placing a value on re-use and recycling, with the aim of zero waste.

Related to the circular economy are producer responsibility approaches, where producers are required, to design and make products that are recoverable, or recyclable, and accept the return of waste produced by their products. Producer responsibility can be encouraged by importing countries via legislative mechanisms, such as levies on imported products that can be recycled at the end of their operational life.

Environmental Models

These newer policy models sit alongside other general environmental models for managing waste safely and preventing waste pollution. These models may adopt tools such as EIA for waste generating activities, permitting or licensing of waste management facilities, regulation of waste collection and offences for harmful actions with respect to waste such as littering or dumping, as well as incentives to segregate and separate wastes. Few of the participating countries, however, have extensive testing, monitoring and tracking measures in their waste management legislation to support the successful operation of these models. Effective compliance and enforcement of standards are also necessary.

The model used to formulate the waste management legislative framework will necessarily influence the efforts and input needed to manage not only waste, but the legislation and the government's required management:

- Different types of legislative models can be adopted to give effect to different types of policy objectives. In turn these different models require differing levels of institutional support and administrative arrangements to make them work.
- Operation, regulation and enforcement are distinct functions that can be divided among different agencies. Sometimes these roles are divided among public and private bodies, but in some cases, they are all the responsibility of government or semi-public entities. All these functions may involve the community in different ways, such as providing information to the community and involving the community in enforcement activities.

Table 13 summarises, in general terms, different kinds of legislative models for waste management, the overall policy objectives they relate to, and the key institutional underpinning required for their administration and operation, as well as examples drawn from the waste-related laws of the participating countries.

Table 14 describes how the existing and pipeline waste management legislation of participating countries maps against these general models.

Table 13: Legislative models and institutional requirements

LEGISLATIVE MODEL	RELATED POLICY GOAL(S)	INSTITUTIONAL REQUIREMENTS	EXAMPLES
<p>Dedicated waste management legislation [WMA]</p> <ul style="list-style-type: none"> • Definitions of waste streams /other waste as prescribed by regulation • Designation of responsibilities for waste management • Standards/protocols for collection, treatment, storage/ disposal • Waste licencing/ permitting of waste operators (OHS/safe handling) • Audit and monitoring provisions • Sustainable financing mechanisms, e.g. levies/ charges • Enforcement provisions and incentive-based regulation 	<ul style="list-style-type: none"> • Waste reduction / prevention • Re-use, Recycling, Recovery • Identification and achievement of waste reduction targets • Safe handling, storage and disposal • Minimising harm to environment and people • Sustainable financing (e.g. user-pays / polluter-pays; extended producer responsibility) • Incentivising behavioural change, including re-use and recycling • Supporting cultural values in terrestrial and marine environments 	<ul style="list-style-type: none"> • Clear designations of responsibility • Inter-agency cooperative approach • Cooperation between different levels of government • Supporting ‘soft’ law instruments • Staffing / resourcing for implementation, monitoring and enforcement • Ongoing access to information; technical and policy setting • Support for storage, recovery and disposal • Community / private sector consultation 	<ul style="list-style-type: none"> • <i>Waste Management Acts</i> in Samoa, Tonga, Tuvalu, and Vanuatu • Proposed Solid and Hazardous waste legislation in Cook Islands
<p>Regulation of specific waste streams under environment protection legislation e.g. solid waste, bulky waste, organic waste, recyclables, plastics, disaster waste, wastewater [EPAAct]</p> <ul style="list-style-type: none"> • Definitions of waste streams • Provisions re storage, collection, segregation and disposal of waste • Technical standards/ specialist implementation • Enforcement provisions 	<ul style="list-style-type: none"> • Effective / efficient waste management • Minimising harm to environment and people • Sustainable financing • Comprehensive Waste Collection • Improvement of waste sorting and diversion from landfill • Recycling; Recovery • Minimising waste pollution and human health risks • Hazard reduction and climate change adaptation 	<ul style="list-style-type: none"> • Clear designations of responsibility • Inter-agency cooperative approach • Supporting ‘soft’ law instruments • Staffing / resourcing for implementation, monitoring and enforcement • Ongoing access to information • Support for secure storage, recovery and disposal • Community / private sector consultation 	<ul style="list-style-type: none"> • Solid Waste Management Regulations in Yap State (the FSM), Palau and the RMI • Environment Management (Waste Disposal and Recycling) Regulations in Fiji • Proposed <i>Waste Management Bill 2016</i> to amend <i>Environment Act</i> in Solomon Islands
<p>Regulation of hazardous waste e.g. healthcare waste, asbestos, e-waste, wastewater [Haz waste]</p> <ul style="list-style-type: none"> • Identification of hazard sources • Separation and diversion from landfill • Registering, tracking and monitoring • Staff training and capacity building 	<ul style="list-style-type: none"> • Effective / efficient waste management • Waste segregation • Safe handling, regulated storage, and out of country disposal, as necessary • Minimising pollution harm to environment and people • Utilisation of best practice technologies, with implementation guidelines, e.g. healthcare waste incineration 	<ul style="list-style-type: none"> • Clear designations of responsibility • Inter-agency cooperative approach • Cooperation between different levels of government (local operational to national) • Supporting ‘soft’ law instruments • Staffing / resourcing for implementation, monitoring and enforcement 	<ul style="list-style-type: none"> • <i>Hazardous Wastes and Chemicals Act</i> in Tonga • <i>Solid Waste Management Regulations</i> in Palau and the RMI • Healthcare waste management plans in Samoa, Papua New Guinea • Asbestos disposal guidelines - Papua New Guinea

LEGISLATIVE MODEL	RELATED POLICY GOAL(S)	INSTITUTIONAL REQUIREMENTS	EXAMPLES
<ul style="list-style-type: none"> Licensing/permitting (OHS, regulated handling and disposal) Targeted fee/ charges basis to reflect risk management requirements Compliance with MEA obligations 	<ul style="list-style-type: none"> Building capacity to deal with disasters/ pandemics 	<ul style="list-style-type: none"> Ongoing access to information Support for secure storage, recovery and environmentally sustainable disposal 	<ul style="list-style-type: none"> Regulations / guidelines under OHS legislation in Fiji, Samoa and Niue. Specific part in dedicated waste legislation in Tuvalu <i>Ozone Layer Protection Act 2010</i> [2014] in Vanuatu
<p>Sustainable waste-financing systems [Sus fin/CDL]</p> <p>Examples include:</p> <ul style="list-style-type: none"> Container deposit system; recycling /re-use deposit fees Levy on items at customs point e.g. beverage containers/cans, lead acid batteries, PET bottles Advance disposal fee at customs point Scaled landfill fees i.e. higher for recyclables Separate, dedicated fund with regulations. for management and distribution of funds; independent audit functions 	<ul style="list-style-type: none"> Waste reduction / prevention Re-use, Recycling, Recovery Effective / efficient waste management Supporting waste segregation Minimising waste pollution Sustainable financing (e.g. user-pays / polluter-pays; extended producer responsibility) Incentivising behavioural change e.g. through % of amount paid to consumers as refund after use; % paid to support recycling of items Supporting cultural values in terrestrial and marine environments 	<ul style="list-style-type: none"> Inter-agency cooperative approach and cooperation b/n national and provincial/ local government Reservation of fund from consolidated revenue with transparency and independent oversight Staffing / resourcing for implementation at customs point; monitoring and compliance Ongoing access to information Support for storage, re-use, recovery and disposal (e.g. export fees) Community / private sector consultation Public education - communications expertise and resources 	<ul style="list-style-type: none"> Container deposit schemes in the FSM (except Chuuk), Fiji, Kiribati, Palau Waste levy and select refund scheme on wide range of products in Tuvalu, including but not limited to waste that can be recycled/ recovered Cook Islands – advance disposal fee RMI - Waste Fund
<p>Prohibition on import of certain items [Ban]</p> <ul style="list-style-type: none"> Most commonly in the context of plastics e.g. single-use plastic bags, Styrofoam containers, disposable straws/cutlery. May take form of levy rather than outright prohibition Applicable to other high risk, waste-generating products or chemicals e.g. asbestos sheeting, POPs; biosecurity 	<ul style="list-style-type: none"> Waste reduction / prevention Effective / efficient waste management Minimising waste pollution, health and environmental risks Meeting International waste management obligations Supporting in-country industries such as tourism and hospitality Supporting cultural values in terrestrial and marine environments 	<ul style="list-style-type: none"> Clear designations of responsibility and authorisations Inter-agency cooperative approach Supporting 'soft' law instruments Staffing / resourcing for implementation at customs point; in-country monitoring and compliance Ongoing access to information Storage at customs point, as necessary, and disposal Community / private sector consultation/ education - communications expertise and resources 	<ul style="list-style-type: none"> Various prohibitions enacted in the FSM, Fiji, Kiribati, Niue, Palau, PNG, RMI, Samoa, Tonga, Tuvalu, and Vanuatu. Proposed in the Cook Islands for single-use plastics. 'Zero' plastic initiative in Timor-Leste.

LEGISLATIVE MODEL	RELATED POLICY GOAL(S)	INSTITUTIONAL REQUIREMENTS	EXAMPLES
<ul style="list-style-type: none"> Typically combined with in-country prohibition on manufacture, sale and distribution <p>Development control / impact assessment regimes / licences [EIA]</p> <ul style="list-style-type: none"> Waste regulation as component of environmental legislation with regulations. for project EIA to inform development consents and pollution /discharge controls to minimise env. impacts. Broad powers to impose waste-relevant conditions on project and operational (pollution control) licences/permits Supporting regulations - specific regulations for identified wastes/ risk contexts Testing, monitoring & reporting requirements, offence provisions 	<ul style="list-style-type: none"> Waste reduction / prevention Effective / efficient waste management Safe handling, storage and disposal Minimising waste pollution, health and environmental risks including siting of landfills Implement strategic planning objectives e.g. spatial controls to divert wastewater from environmentally sensitive areas Polluter-pays and targeted discharge licences/fees Supporting cultural values in terrestrial and marine environments 	<ul style="list-style-type: none"> Clear designations of responsibility and authorisations Inter-agency and intergovernmental cooperative approach Technical expertise to set standards, and evaluation of EIAs and pollution controls Staffing / resourcing for implementation, testing/monitoring and enforcement Capacity building/OHS for operational staff e.g. at landfills to control pollution Ongoing access to information including technical and scientific standards and BAT Community / private sector consultation/ joint development of codes of practice 	<ul style="list-style-type: none"> Environmental and / or planning legislation in Fiji, Kiribati, Niue, Samoa, PNG, Solomon Islands, RMI Coverage of major developments in Tuvalu <i>Waste Management Act</i> Solomon Islands Water Authority (Catchment Areas) Regulation restricts introduction of pollutant or wastes into catchment areas.
<p>Compliance and enforcement/ changing behaviour [Comp/enforce]</p> <ul style="list-style-type: none"> Civil and criminal offences, and administrative penalties Compliance tools e.g. littering spot fines, clean up notices, reputational penalties e.g. non-compliance notices Offence hierarchy and graded penalties (individuals vs corporations; single vs recurring offences); negotiated penalties Identified role for courts/tribunals and case reporting Community awareness programs 	<ul style="list-style-type: none"> Waste reduction / prevention Effective / efficient waste management Minimising pollution, health and environmental risks Waste Financing (e.g. user-pays / polluter-pays) where e.g. fines revert to waste management Incentivising behavioural change in industry and community Supporting new regulatory models e.g. prohibitions on single use plastics Supporting cultural values in terrestrial and marine environments 	<ul style="list-style-type: none"> Clear designations of responsibility for enforcement, and delegations of powers as necessary e.g. to police, municipal officers Inter-agency and intergovernmental cooperative approach, including with legal officials for prosecutions/ civil actions Enhanced staffing/resourcing for monitoring, compliance and enforcement Interagency training and capacity building programs Ongoing access to information 	<p>All participating countries, e.g.</p> <ul style="list-style-type: none"> RMI - EPA cease and desist orders; imposition of civil penalties; institution of civil proceedings; and any other action authorised under 'any other law'. Littering offences and offences under related legislation e.g. Nauru, Vanuatu Kiribati - Duty to clean-up environment PNG - Duty to prevent significant environmental harm and offences Samoa - community involvement in waste management, including

LEGISLATIVE MODEL	RELATED POLICY GOAL(S)	INSTITUTIONAL REQUIREMENTS	EXAMPLES
<p>Recovery of waste costs from private sector/polluter [Private/polluter]</p> <ul style="list-style-type: none"> • Packages of measures under legislation and ‘soft law’ • Tourism: Information and education; re-useable items; ‘green fee’ as arrival or departure tax; industry responsibility to reduce waste • Extended producer responsibility requirements / standards in legislation and ‘soft law’ • Consumer awareness programs e.g. packaging 	<ul style="list-style-type: none"> • Waste reduction / prevention • Effective / efficient waste management • Minimising waste pollution and reducing environmental and health risks • Sustainable financing (e.g. user-pays / polluter-pays) • Incentivising behavioural change in industry, consumers and community • Supporting cultural values in terrestrial and marine environments 	<ul style="list-style-type: none"> • Integration with traditional/ community-based authorities, esp. in rural areas • Community / private sector consultation and compliance partnerships (soft law) • Clear designations of responsibility and cooperation between public and private sector • Monitoring and facilitation of compliance directed at ‘consumers’ • Government procurement regulations/ guidelines • Management and distribution of funds, with transparency and audit regulations. • Community / private sector consultation and partnerships • Public education - communications expertise and resources 	<p>making of by-laws and community programs and initiatives</p> <ul style="list-style-type: none"> • Palau – responsible tourism measures • PNG – mining contractor responsibility to take back their waste • RMI - Majuro Atoll Waste Company (re tourist input) • Nauru – natural disaster assistance • Samoa -<i>Tourism Development Act 2012</i> (minimise waste) • Tuvalu - Tourism departure fee • Cook Islands – advance disposal fee
<p>Information provision, planning and reporting on waste issues [Planning/reporting]</p> <ul style="list-style-type: none"> • Provisions in legislation for publicly available waste management information • Strategic/priority and target-setting in legislation or regulation • Mandatory reporting by government agencies and waste industry on key targets and operations • Waste audits and reporting • Requirements for public consultation/ education 	<ul style="list-style-type: none"> • Waste reduction / prevention • Efficient and effective waste management • Incentivising behavioural change in industry, consumers and community • Supporting cultural values in terrestrial and marine environments 	<ul style="list-style-type: none"> • Designations of responsibility for planning and reporting • Inter-agency and intergovernmental cooperative approach • Staffing/resourcing/training for community and industry programs • Ongoing access to information • Community and industry consultation 	<ul style="list-style-type: none"> • Examples of State of the Environment reports in FSM and Palau • Vanuatu – National Statistics Office waste reporting • Tuvalu waste audits

Table 14: Legislative models in participating countries' waste laws

MODEL	COOK ISLANDS	FSM	FIJI	KIRIBATI	NAURU	NIUE	PALAU	PNG	RMI	SAMOA	SOLOMON ISLANDS	TIMOR-LESTE	TONGA	TUVALU	VANUATU
DEDICATED WASTE MANAGEMENT LEGISLATION															
REGULATION OF SPECIFIC WASTE STREAMS UNDER ENVIRONMENT PROTECTION LEGISLATION.															
REGULATION OF HAZARDOUS															
SUSTAINABLE WASTE-FINANCING SYSTEMS															
PROHIBITION/LEVY ON IMPORT OF CERTAIN ITEMS															
DEVELOPMENT CONTROL / IMPACT ASSESSMENT REGIMES / LICENCES															
COMPLIANCE AND ENFORCEMENT/ CHANGING BEHAVIOUR															
RECOVERY OF WASTE COSTS FROM PRIVATE SECTOR/POLLUTER															
INFORMATION PROVISION, PLANNING AND REPORTING ON WASTE ISSUES															



Not present in existing legislation



Present in existing legislation



Present in pipeline legislation



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