This initiative is supported by **PacWastePlus**-a 72-month project funded by the European Union (**EU**) and implemented by the Secretariat of the Pacific Regional Environment Programme (**SPREP**) **to sustainably and cost effectively improve regional management of waste and pollution.**

PacWastePlus Programme

Asbestos Management Policy and Regulation for Pacific Island Countries and Timor-Leste

October 2021

Justification brief for leaders (includes both policy and regulation opportunities)

Disclaimer

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Secretariat of the Pacific Regional Environment Programme (SPREP)
PO Box 240
Apia, Samoa
www.sprep.org
sprep@sprep.org

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

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Contents

Acronyms

Acronym	Description
ACM	Asbestos containing material
EPA[1]	Environmental Protection Agency
EU	European Union
ILO	International Labour Organisation
NGO	Non-Government Organisation
OH&S	Occupational Health and Safety
PICs	Pacific Island Countries
SPREP	Secretariat of the Pacific Regional Environment Programme
WHO	World Health Organisation

[1] This acronym refers to EPA agencies in different countries. The document text uses the country name in conjunction with the acronym for clarity.

About PacWastePlus

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

About PacWastePlus

The impact of waste and pollution is taking its toll on the health of communities, degrading natural ecosystems, threatening food security, impeding resilience to climate change, and adversely impacting social and economic development of countries in the region. The PacWastePlus programme will generate improved economic, social, health, and environmental benefits by enhancing existing activities and building capacity and sustainability into waste management practices for all participating countries.

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

KEY OBJECTIVES

Outcomes & Key Result Areas

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

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

Key Result Areas

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

Learn more about the PacWastePlus programme by visiting

EUROPEAN UNION

SPREP
Secretariat of the Pacific Regional Environment Programme

PacWastePlus
PACIFIC WASTE MANAGEMENT

https://pacwasteplus.org/

About the PacWastePlus Regional Asbestos Management Project

The management and disposal of asbestos and asbestos containing materials (ACM) is an ongoing concern in the Pacific region. In seeking to improve the ways that asbestos and asbestos containing materials are managed, our project's focus is to prevent exposure to asbestos fibres in order the eliminate asbestos-related diseases.

Asbestos is a known health hazard and may be present in buildings and pipes throughout the pacific. A 2016 study estimated some 188,000m^2 of non-residential asbestos was present in Pacific islands, of which some 146,000 m^2 (78%) was confirmed as a high or moderate risk to human health (SPREP 2016).

When products containing asbestos are damaged or become degraded over time, asbestos fibres are exposed and may become airborne. Health risks are exacerbated in natural disasters, with destructive cyclones damaging products such as asbestos roofing and cladding, an issue of increasing concern as the impacts of climate change are experienced across the region.

The World Health Organisation (WHO) states that when a country stops using asbestos, their asbestos-related disease burden decreases over time. In contrast, countries continue to use asbestos are likely to have a substantial burden of asbestos-related disease in the future due to their past and ongoing asbestos use. Reducing exposure without addressing ongoing import and use are insufficient to eliminate asbestos-related diseases (Kameda et al, 2014).

PacWastePlus Regional Asbestos Project

The PacWastePlus Regional Asbestos Project will support countries in executing solutions, both legislative and policy driven, to preventing exposure to asbestos fibre, and thereby reduce asbestos-related diseases.

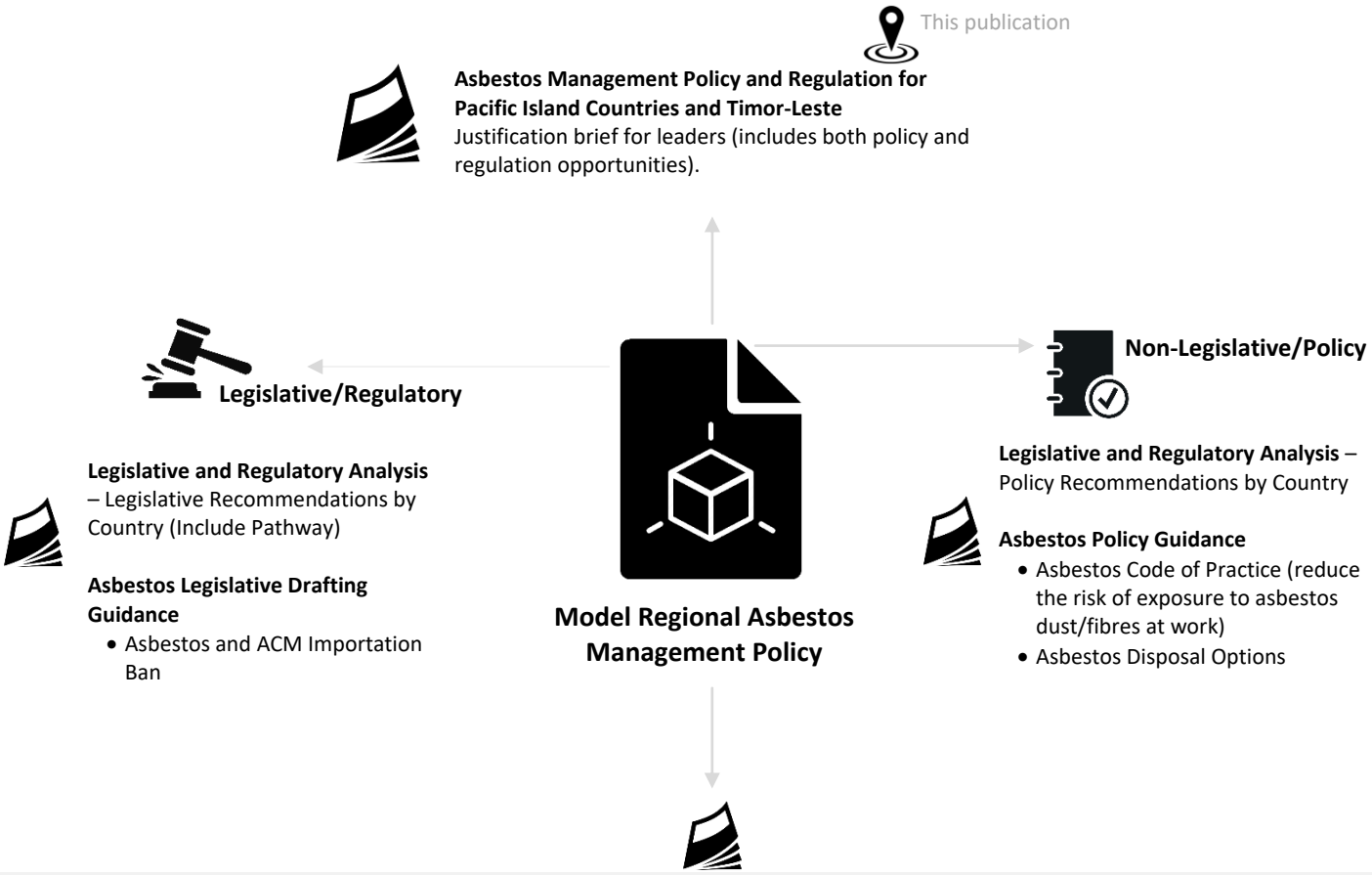
The activities to be delivered by the PacWastePlus Regional Asbestos Project are:

- Promote the understanding of asbestos exposure risks
- Implement legislative/regulatory bans on the manufacture, use, reuse, import, transport, storage, or sale of all forms of asbestos and ACMs
- Create and support the adoption of an ACM Code of Practice
- Provide support tools/documents to properly manage and control ACM.

The project will achieve these outcomes through direct work with countries, and development of tools and guidance as described in the following schematic.

The technical resources will be supported through the production and dissemination of a variety of community and government resources, and provision of training to government workers involved in the management of asbestos.

ACM POLICY NOTE SERIES PUBLICATIONS



Asbestos Containing Materials Management Outreach

- Living with Asbestos
- Differences and Similarities between an Asbestos Ban and an Asbestos Code of Practice
- Identification of Asbestos Containing Materials
- Asbestos Legacy Management Case Studies
- Management of Asbestos Containing Materials after Disasters
- Why Ban Asbestos
- Managing Legacy Asbestos
- Impacts of Asbestos Exposure.
- Asbestos Management Options – (Global Legislation, Guidelines and Approved Codes of Practice)

SECTION 1: Introduction to Asbestos and ACM Management

Aim of this Document

This document is designed to assist PacWastePlus participating countries to implement legislative instruments that ban the importation of asbestos and asbestos containing materials (ACMs).

This document provides:

- Introductory information on asbestos, its impacts on human health, and current management asbestos management practices
- Information on the regulatory, and non-regulatory activities that can be implemented to reduce exposure risk from asbestos and ACM
- Justification for executing an ACM ban both through policy and regulation.

The advice on management of asbestos in the region is focussed on the prevention of ***community exposure to asbestos fibres in order the eliminate asbestos-related diseases***.

Inhalation of asbestos fibres can cause a range of fatal diseases such as asbestosis (fibrosis of the lungs) and a range of cancers, including mesothelioma (WHO, 2018). When products containing asbestos are damaged or become degraded over time, asbestos fibres are exposed and can become airborne.

Health risks are exacerbated in natural disasters, with destructive cyclones damaging products such as asbestos roofing and cladding, an issue of increasing concern as the impacts of climate change are experienced across the region.

The World Health Organisation (WHO) states that when a country stops using asbestos, their asbestos-related disease burden will decrease over time. In contrast, countries that have not banned asbestos are likely to have a substantial burden of asbestos-related disease in the future, due to their past and ongoing asbestos use. Reducing exposure without addressing ongoing import and use will likely be insufficient to eliminate asbestos-related diseases (Kameda et al, 2014).

As recognised by the member countries, one of the challenges is that asbestos and ACMs are still able to be imported into each country and used in ongoing applications such as construction. The ongoing import and use of asbestos and ACMs increase (i) exposure risk, and (ii) the burden of legacy materials to be managed and ultimately disposed of at the end of life or when mitigating risk.

This document seeks to instruct, justify, and inform Pacific Island countries and Timor-Leste on suitable principles to apply when drafting :

- legislation and regulations for the implementation of an asbestos and ACM importation ban
- legislation and regulations to restrict the manufacture, use, reuse, import, transport, storage, or sale of all forms of asbestos
- development and implementation of non-legislative instruments such as a Code of Practice to ensure the regulated community is resourced to appropriately manage the legacy asbestos issues, transportation, and safe disposal of asbestos and ACMs.

Introduction to Asbestos and ACM

Various Forms and Uses of Asbestos and Asbestos Containing Materials

Asbestos is a group of naturally occurring minerals that occur as fibrous silicates. The most common types of asbestos fibres are:

Chrysotile (white)

Crocidolite (blue)

Amosite (brown)

The colour differences are very slight and laboratory analysis is needed to confirm the identity of different types of asbestos fibre.

Asbestos products can be broadly categorised as friable or non-friable.

- Friable asbestos can be crumbled, pulverised, or reduced to powder by hand pressure, and is found in products such as insulation or pipe lagging materials.
- Non-friable asbestos is difficult to break down or crumble by hand and is often bonded (such examples include cement, resin, bitumen compounds, etc.) into other products such as asbestos roofing or cladding materials.

Example of friable asbestos

Non-friable (bonded) asbestos

Asbestos Definitions

The following definitions were sourced from various legislative instruments in use in other countries, these may assist confirming the definition for National legislative instruments in the Pacific and Timor-Leste.

DEFINITIONS

Asbestos means the asbestiform varieties of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals, including the following:

- actinolite asbestos:
- grunerite (or amosite) asbestos (brown):
- anthophyllite asbestos:
- chrysotile asbestos (white):
- crocidolite asbestos (blue):
- tremolite asbestos:
- a mixture that contains 1 or more of the minerals above

Asbestos contaminated dust or debris (ACD) means dust or debris that has settled within a workplace and is, or is assumed to be, contaminated with asbestos.

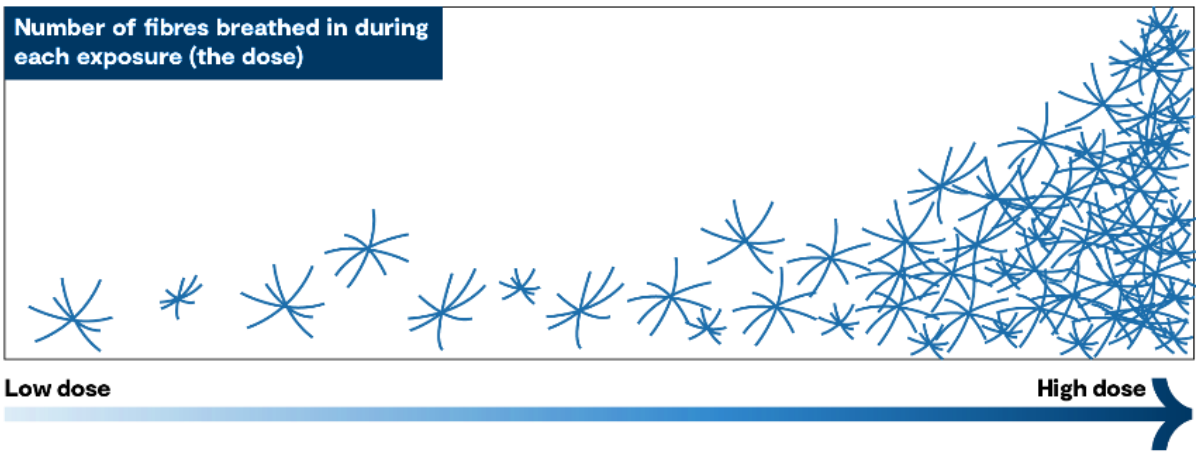
Asbestos Containing Material (ACM) means any material or thing that, as part of its design, contains asbestos.

Health Risks from Exposure to Asbestos

All forms of asbestos are proven causes of cancer in humans. Potential health problems occur if/when asbestos fibres become airborne. People can be exposed to asbestos by breathing in air that contains / is contaminated with asbestos fibres. Intact asbestos-containing material(s) is not a risk merely by its presence.

The risks of developing an asbestos-related disease increases in proportion to the number of asbestos fibres a person breathes in during their life. This in turn depends on the number of fibres breathed in during each exposure.

However, there is no safe lower limit of exposure, and all exposure may add to the overall risk of a disease developing.



The risk of developing an asbestos related disease increases when many fibres are inhaled, however, limited or short-term exposure to asbestos fibres, including 'second-hand' exposure may also be harmful. For example, many victims of asbestos-related diseases have been family members of workers who brought asbestos home on their clothing. There has also been an emerging trend of people developing asbestos-related diseases who never worked with asbestos, but were exposed to it through home renovations.

Asbestos exposure does not necessarily lead to the development of an asbestos-related disease. It is still unknown why certain people are susceptible to these diseases, whilst others who are regularly exposed may avoid them altogether (Asbestos Safety and Eradication Agency, 2015).

Diseases that may arise from inhaling airborne asbestos include:

- asbestosis (scarring of lung tissue)
- pleural plaques (thickening of membranes around the lungs)
- cancer of the lung, larynx and ovary
- mesothelioma[2] (malignant tumours, cancers that form in the lining of the lungs, stomach, heart, or other organs)

Symptoms of asbestos-related diseases include breathing difficulties and 'scarring' of the lung that can be detected by x-ray. Smoking can increase the risk of developing lung cancer following exposure to asbestos.

Asbestos-related diseases take time to develop, with asbestosis reportedly presenting 20 to 30 years from the time someone is initially exposed to asbestos. The latency period depends on the duration and intensity of exposure to asbestos. The disease burden within a Pacific Island context will likely continue for some decades given the exposure that may have occurred to date, highlighting the urgency for legislative response (bans and Codes of Practice) along with structured awareness campaigns, to prevent further exposure to asbestos.

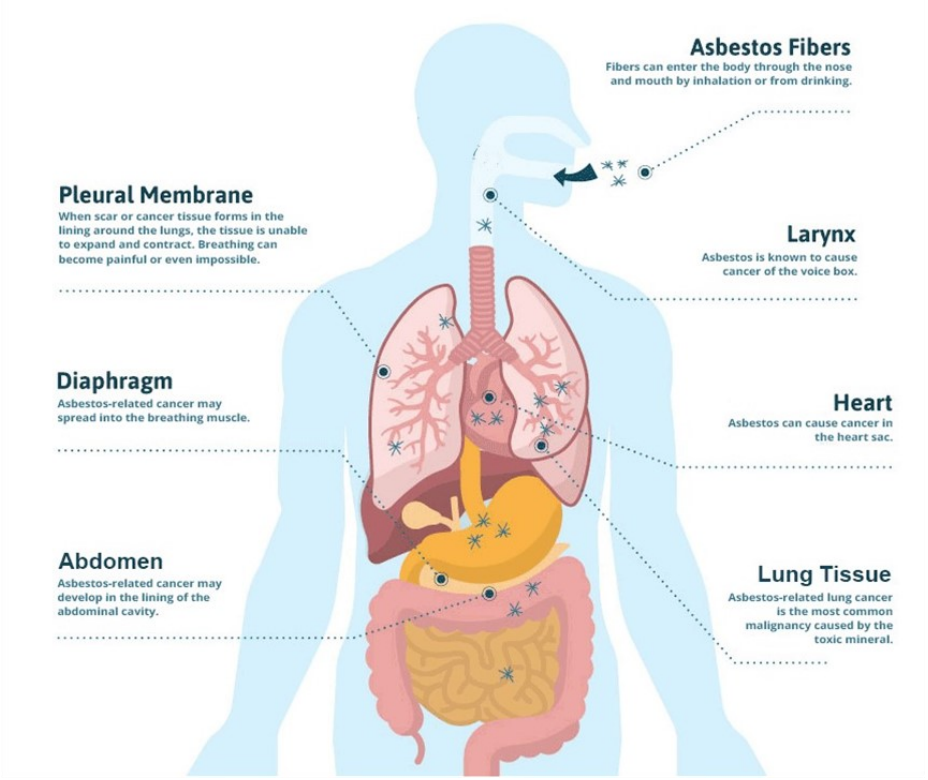


Figure 1.1 *Human body diagram identifying the health dangers posed by asbestos*

[2] Research indicates short-term exposure presents a lower risk. However, researchers have found even one-time exposure to asbestos can lead to diseases such as mesothelioma. No amount of asbestos exposure is considered safe. https://www.mesothelioma.com/mesothelioma/misconceptions/

Asbestos Containing Materials Which Pose an Exposure Risk

Asbestos containing material (ACM) means any material or thing that, as part of its design, contains asbestos. The following are common materials, which have historically contained asbestos.

Asbestos Adhesives: Roofing sealant, pipe lagging, duct tape, furnace cement and glue for flooring, wall panels, ceiling tiles and interior fixtures

Asbestos Gaskets: Heat-resistant seals for joining machine parts, valves, and hoses

Asbestos Construction Mastics & Gunning Mix: Used to repair or fill industrial materials such as furnaces, tile or flooring

Asbestos Insulation: Loose-fill insulation, pipe wrap, block insulation, acoustic tiles, and spray-on insulation

Asbestos Duct Connectors: Fabric that connects HVAC system parts together

Asbestos Plastics: Used in tools, cookware, appliances, and vehicles, especially for brake pads

Asbestos Electrical Components: Ebonized panels, electrical shielding, moulded cement bases, flash guard paper, wire insulation and cable wrap

Asbestos Sheets: Corrugated cement sheets, flat cement sheets, drywall and "asbestos lumber" for roof shingles and siding

Asbestos Felt: Used in roofing, flooring, and paper mills

Asbestos Textiles: Protective clothing, upholstery, and fire blankets

Asbestos Fireproofing: Firefighter gear, tar paper, paint, and spray-on fireproofing

Asbestos Vinyl Products: Floor tiles, sheet flooring, and wallpaper

Whilst some products (asbestos containing fire-fighting suits or asbestos paper) are unlikely to be found in PICs; asbestos cladding, roofing, guttering, downpipe, water pipe, gaskets and brake pads are common ACMs.

The following graphic illustrates examples of common locations and types of asbestos and ACM, however, is not an exhaustive list.

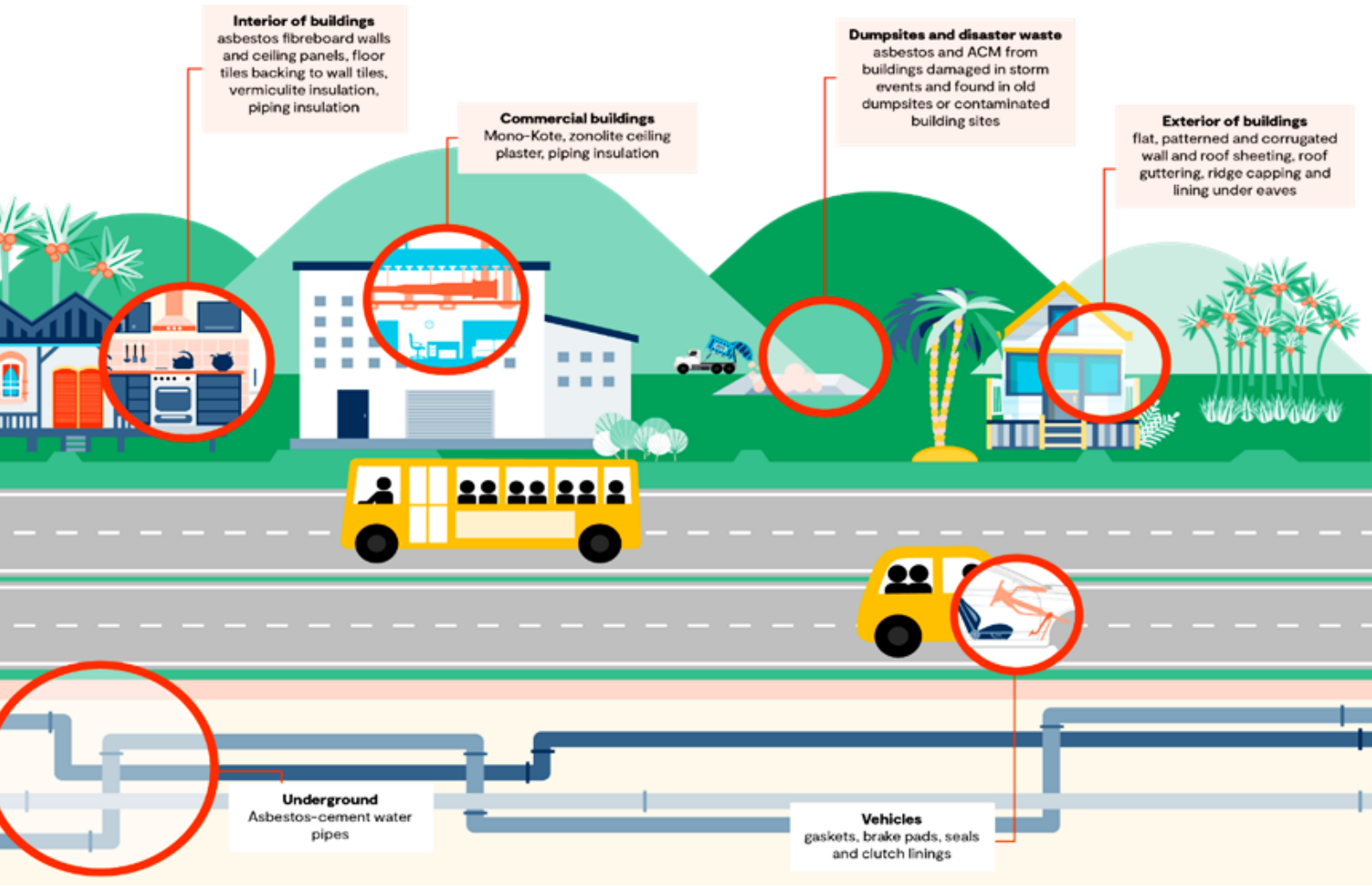


Figure 1.2 Example of common location and types of asbestos (Source: webmd.com)

Asbestos Legacy in the Pacific and Timor-Leste

When buildings/structures containing asbestos are in poor repair or a state of dilapidation, they present a risk to communities, particularly occupants, building users or construction workers who undertake building modifications or repairs.

Natural disasters such as cyclones compound the problem as emergency personnel, volunteer clean-up crews, and waste management workers are potentially exposed to asbestos during clean-up activities in the aftermath of natural disasters or storm events.

A survey conducted across 13 PICs estimated that there was 187,891 m^2 of non-residential asbestos in-situ, of which an estimated 78% was confirmed as a high or moderate risk to human health (SPREP, 2015).

The predominant form of asbestos present in the region is chrysotile (white) asbestos, with amosite (brown) and crocidolite (blue) asbestos found to occur occasionally (O'Grady, 2018).

The survey found:

- widespread asbestos in 7 surveyed countries;
- reuse and resale of asbestos routinely occurred in several locations; and
- the sale of new asbestos products found in stores in the Solomon Islands and Vanuatu.

The survey concluded:

- that more than USD $150 million would be the estimated cost to remove and replace all the asbestos identified in the surveyed locations (SPREP, 2015).
- There was ongoing import of new asbestos materials into the Pacific region, primarily from Asia.

Because over 60 countries, including all member states of the EU, have national asbestos bans in place, markets for asbestos and ACM have incrementally shrunk in recent years. Despite this trend, asbestos and ACM continue to be produced, with global production at over 1.1 million tonnes in 2019 with Russia, Kazakhstan, and China the highest producers in terms of tonnages.

Without individual legal or policy instruments to ban asbestos imports into Pacific Island nations, they become ever more vulnerable to being flooded with asbestos-containing materials that are not accepted in countries with import bans in place.

SECTION 2: Global and Regional Management of Asbestos and ACM

There are numerous countries globally acting on asbestos use and importation. Details on these activities, are detailed following.

International Conventions addressing Asbestos Management

International conventions provide an impetus for addressing issues related to hazardous chemicals or hazardous wastes. Signatories are obliged to enact national regulations to bring the conventions into the national regulatory framework. It is these national laws and regulations that then provide the implementing mechanisms to manage asbestos and ensure compliance with the conventions.

Prerequisites to successful legislative and regulatory reform are government commitment and action, in-country capacity building, and mechanisms for effective law enforcement.

Major international conventions relevant to asbestos as a hazardous substance are outlined in Table 2.1.

Table 2.1 Conventions relevant to asbestos

Convention	History	Regional Parties to Conventions
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention)	Promulgated on 10 September 1998. Hazardous chemicals are listed in Annex III of the Rotterdam Convention. This listing then triggers obligations for information exchange to ensure there is informed consent prior to the import of these chemicals. Whilst most asbestos types are included, the most common industrial asbestos, chrysotile (white asbestos), is omitted from the list. Despite widespread support amongst Parties, and several attempts, agreement to list chrysotile asbestos has not been achieved. In May 2017 in Geneva, Pacific Island Parties to the Rotterdam Convention (Cook Islands, Tonga, Samoa, and Republic of the Marshall Islands) spoke in support of the listing of chrysotile asbestos in Annex III of the Convention. The intervention was also supported by Kiribati, which was present at the Convention but is not a Party.	Signed and ratified: Australia, Cook Islands, New Zealand, Republic Marshall Islands, Samoa, Tonga, Vanuatu
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention)	Adopted in 1989. Any waste that contains asbestos falls under the Convention, which aims to reduce movements of hazardous waste between nations, particularly the transfer from developed to less developed countries. Import and export controls, along with strict notification procedures are important protection measures. However, the Basel Convention only is relevant once materials can be viewed as wastes.	Signed and ratified: Australia, Cook Islands, Federated States of Micronesia, Kiribati, Nauru, New Zealand, Palau, Papua New Guinea, Republic Marshall Islands, Samoa, Tonga, Vanuatu
Convention to Ban the importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement of Hazardous wastes within the South Pacific Region (Waigani Convention)	Modelled on the Basel Convention and provides the regional implementation instrument in the South Pacific Region. The Waigani Convention entered into force in 2001.	Signed and ratified: Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, New Zealand, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu Signed but not ratified: Nauru, Palau

International Organisations Supporting Asbestos Bans (Importation and Use)

Major international agencies have endorsed the ban of asbestos to reduce exposure to asbestos fibre and eliminate asbestos-related disease. These include:

- the **International Labour Organisation (ILO)** - resolution adopted at the 95th General Conference in June 2006, which committed the ILO to actively promote a global asbestos ban. This resolution is known as Safety in the Use of Asbestos (C162) and was a significant catalyst for action; and
- the **World Health Organisation (WHO)** - in October 2006, the WHO published a *Policy Statement on the Elimination of Asbestos-Related Diseases* calling for a worldwide ban.

Nations that have Implemented Asbestos Importation Bans

Over 60 countries have implemented asbestos importation bans globally, these are detailed in table 2 below.

Table 2.2 Current Asbestos Bans

Current asbestos bans (as of 07/2019)[1]				
Algeria	Czech Republic	Iraq	Mauritius	Seychelles[3]
Argentina	Denmark	Ireland	Monaco	Slovakia
Australia	Djibouti	Israel	Mozambique	Slovenia
Austria	Egypt	Italy	Netherlands	South Africa
Bahrain	Estonia	Japan	New Caledonia	Spain
Belgium	Finland	Jordan[2]	New Zealand	Sweden
Brazil	France	Korea (South)	Norway	Switzerland
Brunei	Gabon	Kuwait	Oman	Taiwan[4]
Bulgaria	Germany	Latvia	Poland	Turkey
Canada	Gibraltar	Liechtenstein	Portugal	United Kingdom
Chile	Greece	Lithuania	Qatar	Uruguay
Colombia	Honduras	Luxembourg	Romania	
Croatia	Hungary	Macedonia	Saudi Arabia	
Cyprus	Iceland	Malta	Serbia	

Examples of Asbestos Management Applied Globally

There are a range of options for managing the import, manufacture, sale, use, and reuse of asbestos and ACM. There is often a multi-agency approach required, particularly in the early stages of designing and implementing the ban when roles and responsibilities need to be clearly determined.

The legal and regulatory instruments available for use to manage asbestos include:

- Workplace health and safety
- Environment protection
- Public health
- Hazardous waste management
- Customs law

Table 2.1 identifies which countries have utilised which of the above as lead agencies to manage and implement a ban on asbestos importation and controlled the use and disposal of asbestos and ACM.

Table 2.1 Countries and their lead agencies implementing asbestos and ACM management

Environment	Health	OH&S	Shared
Canada Hong Kong Israel Malta Philippines Taiwan USA	Chile Honduras Jordan Thailand Ukraine	Australia Malaysia New Zealand Oman South Korea UK	EU (OH&S, Environment, wastes and dangerous substances) Kuwait (OH&S and Health) Singapore (Building and Environment)

Inter-agency cooperation and information sharing, and in some cases, the responsibility, will likely produce the best outcome through use of appropriate resources, but will require oversight to ensure issues don't 'fall through the cracks.

Regional Decisions on Asbestos and ACM Management

The issue of asbestos management has been a consistently raised at international forums since 2011. Details of the discussions and decisions are included in Table 2.4

Table 2.4 Asbestos Management Discussion and Decisions at International Forums since 2011

International Forum	Discussion and Decision
2011 – 22nd SPREP Meeting	An *Asbestos Free Pacific – A Regional Strategy and Action Plan* (SPREP 2011) was adopted at the 22nd SPREP Meeting (Samoa) in 2011. The strategy was co-sponsored by SPREP and WHO. The strategy outlines the serious potential health risks that asbestos materials and wastes pose in the Pacific. The focus of the strategy was to act on existing asbestos materials and waste, particularly building materials. The vision of the strategy is: ***An asbestos-free Pacific that reduces negative environmental and public health impacts in Pacific island countries.*** The strategy does not recommend legislative change, with a focus instead on the development and implementation of a national asbestos policy for each country. One of the recommendations was to undertake a Pacific survey of asbestos distribution in the region.
2016 – 27th SPREP Meeting	Following the release of *The State of Asbestos in the Pacific* (SPREP 2016), the 27th SPREP Meeting of Officials held in September 2016 in Niue, included asbestos on the agenda. The discussion highlighted the results from the 2013/2014 PacWaste Project regional baseline survey across 13 PICs, noting widespread asbestos in seven of these countries, the reuse and resale of asbestos in several locations, and the sale of new asbestos products found in stores in the Solomon Islands and Vanuatu. The briefing notes also highlighted that there were no import bans in PICs, and the ongoing risks that this presents. The meeting agreed to the following: • Note the '*State of the Asbestos in the Pacific*' synthesis report produced under the PacWaste project which summarises the findings of the project's Regional Asbestos Baseline Survey • Endorse a Pacific-wide ban on asbestos imports • Direct the Secretariat to progress a Pacific-wide ban on asbestos imports through Cleaner Pacific 2025 and related project envelopes. Whilst the above proposal received very strong support from the Meeting, there were also some concerns raised from Members as to how the implementation of such a ban would be resourced.
2017 – 28th SPREP Meeting	At the 28th SPREP Meeting of Officials held in Apia Samoa in September 2017, Cook Islands with support from Tonga and Australia sought endorsement and commitment from Members to develop and implement a Pacific wide ban on the importation, re-sale, and re-use of products containing asbestos. Concerns previously raised by Members about the implications of an asbestos ban in relation to the World Trade Organisation (WTO) were discussed, with clarification provided that such a ban would not breach any obligations under WTO membership. The recommendations passed by Member states were: • Note the information provided in the paper presented by Cook Islands - Agenda Item 13.1: The need for a Pacific wide ban on asbestos; • Note letters of support in favour of a Pacific wide asbestos ban provided by the Tongan and Australian Government representatives; • Note the work conducted by the EU-funded PacWaste project that has contributed significant resources to asbestos remediation, monitoring and awareness across 13 PICs; • Note the threat posed by new asbestos to Pacific island communities; • Endorse the development and implementation of a Pacific-wide ban on the importation, reuse and re-sale of products and wastes containing asbestos; and • Direct the Secretariat to progress work on the development and implementation of such as ban, in collaboration with SPREP Members, to be resourced through Cleaner Pacific 2025 and PacWastePlus.
2021 – 30th SPREP Meeting	In the 30th SPREP Meeting of Officials held in September 2021, a 'strategic planning and management of hazardous waste' paper was tabled. The meeting endorsed the "Asbestos Management Legislative Reform Pathway" (see Section 5.2 Asbestos Management Legislative Reform Pathway) and supported progress towards the adoption of national bans of asbestos and ACMs

SECTION 3: Implementing Asbestos Management Policy and Regulation in Pacific Island Countries and Timor-Leste

The implementation of Asbestos Management Policy and Regulation, including a ban on the importation of asbestos, will provide significant inroads to the eventual elimination of asbestos related disease.

Regionally, there is no single mechanism for managing asbestos and ACM. The Waigani Convention enables regional cooperation and alignment to address the movement of hazardous waste, but this convention needs to be implemented through national instruments that bring the commitment into enforceable law. Regional instruments such as conventions are a useful tool for consistency of approach, however, statutes and regulations remain the responsibility of each sovereign nation.

The following 'Pathway' is presented to assist countries to consider and design national legislation that is consistent throughout the region.

Asbestos Management Legislative Reform Pathway

PacWastePlus has developed an Asbestos Management Legislative Reform Pathway (Pathway) that clearly identifies the steps necessary to institute bans on asbestos.

This Pathway utilises and summaries the various work underway such as: an analysis of legislative options for the management of asbestos, development of a guidance note / brief on the issues, and a Policy Note to guide the drafting of National legislation to impose a ban on the importation of asbestos.

The development of these resources is in direct response to the outcomes of previous SPREP Meetings requesting specific assistance to manage asbestos and ban its importation to the region.

The following "**Pathway**" is presented as a logical approach to asbestos management reform. It is recognised that countries may already be well advanced in this process and can **'enter the pathway'** at any appropriate step based on their existing management activities.

1. Identify the need for the legislation
Confirm there is an asbestos import / management problem.

2. Pre-feasibility
Identify what overarching purpose/outcome is sought from introduction of asbestos management legislation. Identify issues to be addressed (importation, storage, use, transportation, disposal, etc.) and the specific legislative environment that may be used or modified to manage the changes, and who will be responsible for system administration.

3. Political Support
Undertake internal processes to ensure there is political support to investigate the introduction of sustainable financing legislation further.

4. Establish a Taskforce
Form a multi-agency task force to work on legislative reform process. It's recommended that task force include representatives from the health, environment, Health & Safety (if separate to public health), and waste management agencies, along with Non-Government Organisation representatives where appropriate.

5. Analysis of Legislative Environment
Analysis of legislative environment, considering which laws and regulations need to be amended or developed from scratch. The focus must be on the most effective instruments to achieve the policy objectives (within the existing legislative framework for the country). For the process of developing and implementing the laws/regulations, it is **recommended a lead agency be selected,** along with a mechanism for ongoing inter-agency collaboration.

Rationale and Criteria for the Designation of a Lead Agency for Asbestos Management and Control

When selecting the appropriate lead agency and vesting them with responsibility and authority for implementing and enforcing the ban on asbestos, the following matters should be considered:

- Do current laws make provision for controlling substances which are hazards to the environment and to public health?
- Is asbestos present in buildings and worksites, and is there a department or workplace safety agency with adequate authority and capacity to address all issues related to the detection, management, containment, and disposal of asbestos?
- Is there a waste management agency with legal powers to impose requirements in relation to asbestos, and does it have sufficient capacity to deal with it as a hazardous waste?

There is no right or wrong way of dealing with the issues arising from asbestos and ACMs under a country's laws, but care must be taken to designate the most appropriate arm of government as the lead agency.

Selecting a Lead Agency - Case Studies

In Australia, the Asbestos Safety and Eradication Agency was established under the Asbestos Safety and Eradication Agency Act 2013 as a standalone body to administer the National Strategic Plan overseeing national actions to improve asbestos awareness and the effective and safe management, removal, and disposal of asbestos. This approach underlines a commitment to appropriately resourcing the aim of eradicating asbestos related disease.

In Finland, the lead agency to implement the Asbestos Programme is the Finnish Institute of Occupational Health, given its primacy in matters relating to exposure to asbestos in the workplace. Whilst they are the lead agency, their approach was to rely on a multi-agency task force to develop and implement the law reform process (from six relevant ministries and government agencies).

In the United States of America, the lead agency is the Environmental Protection Authority (EPA), who have implemented several laws at the federal and state level to protect the public from asbestos exposure. Whilst there are other agencies with asbestos regulations, namely the Occupational Safety and Health Administration, Consumer Product Safety Commission and Mine Safety and Health Administration, the EPA have mandates on hazardous substances, hazardous air pollutants, asbestos information, asbestos in schools hazard abatement, safe drinking water, and asbestos hazards in emergency response.

6. Asbestos and ACM National Action Plan

Develop Asbestos and Asbestos Containing Materials **National Action Plan** to provide a foundation for policy goals, roles, responsibilities, challenges, and proposed solutions. An effective plan should have clear steps, measurable actions, resource requirements, and clear timeframes.

Asbestos and ACM National Action Plan Case Studies

Poland Case Study

Poland developed a national action plan to rid the country of asbestos; this plan was developed by Poland's Ministry of Economy and was titled Programme for Asbestos Abatement in Poland 2009-2032. The objectives set out by the Council of Ministers in the programme for disposal of asbestos and asbestos-containing products used in Poland, consisting of:

- removal and disposal of products containing asbestos
- minimising adverse health effects caused by the presence of asbestos in Poland, and
- eliminating negative effect of asbestos on the environment

The 24-year plan defined new activities necessary to abate asbestos in the country, arising from economic and social changes. These activities include legislative tasks, education and awareness-raising activities, removal of asbestos and ACM, implementation of a digital system for monitoring the ACM removal, exposure assessment and health protection, and financing asbestos removal.

To implement coordination and monitoring of the programme, a Programme Board was formed. The Programme Board was appointed by the Minister of the Economy and was made up of: Chair of the Board, Chief Coordinator, and representative of the Minister of the Economy.

Numerous legislative tasks are to be implemented, where the responsibility of those tasks falls within the jurisdiction of: Minister of Economy, Minister of Environment, and Minister of Health. Having an extensive national plan in place such as that of Poland's will successfully abate asbestos and ACM from the country in a safe way.

Finland Case Study

Finland developed an over-arching strategy titled Health for All (HFA) National Programme for Finland in 1985. This included target line 13, to stop the use of asbestos by 1995. To reach this target, the Finnish Institute of Occupational Health developed a National Asbestos Programme, which encompassed numerous actions to minimise exposure, identify asbestos-exposed individuals, assess health risks, and develop diagnostic capacity for asbestos disease.

The programme also incorporated a broad range of training initiatives. A Government Asbestos Committee was formed to complete regulations, with six ministries and state agencies working collaboratively to propose several technical, legislative, administrative, and educational measures to prevent human exposure to asbestos. The National Programme spanned 1987-1992 and was then evaluated for impact and ongoing measures required.

A range of laws and regulations were introduced, including:

- Government Decree 852/1992 on the prohibition of manufacture, import, trade and use of all main types of asbestos, including chrysotile. Waste Law 1072/1993
- Government Decree 1380/1994 on asbestos work for the prevention and minimizing of asbestos exposure and health hazards at work, including employers' responsibilities for recognition of asbestos, registration, prevention and protection, training and education, licensing, health surveillance and occupational exposure limit
- Government Decree 975/2004, on the prohibition of manufacture, import, trade or use of products (with a few exceptions), containing any type of asbestos, including chrysotile
- Government Decrees 318/2006 and 863/2010 on asbestos work

The multi-agency approach provided a collaborative approach to ensure consistency. The National Asbestos Programme clearly stated agreed objectives, along with the pathways for change. Having this type of national plan provides a transparent mechanism for implementing reform.

7. Development of an Asbestos Code of Practice

A code of practice is to advise regulatory bodies, practitioners, trades people and the public on how to undertake safe work requirements when working or encountering asbestos. It is a practical document that clearly provides information on aspects of working with asbestos, the risk associated and how to manage them.

Asbestos Awareness Case Study - New Zealand

Worksafe New Zealand as the lead agency for the management of asbestos provide a range of fact sheets and information resources. Further awareness resources can be found at the government Worksafe site, which provides users with advice on several topics such as:

- working with asbestos
- information for homeowners and landlords
- licencing of asbestos removal companies
- asbestos disposal
- importing ACM
- personal protective equipment

Information is targeted to a range of audiences seeking clarity with a range of issues in the day-to-day identification and management of asbestos. See https://www.worksafe.govt.nz/topic-and-industry/asbestos/

The New Zealand Demolition and Asbestos Association have also created a website to provide tradespeople and homeowners with clear information on managing the risks of asbestos exposure. It combines regulatory obligations with practical advice on how to identify asbestos, and how to work safely to minimise exposure. (https://www.asbestosawarenz.com)

8. Consultation

Community and business consultation be commenced early in process so that concerns can be addressed, and there is clear understanding of the underlying motivation to prevent asbestos-related disease.

9. Adopt Asbestos and Asbestos Containing Materials National Action Plan and Legislative Reform requirements

Utilising consultation feedback, complete and adopt Asbestos and Asbestos Containing Materials National Action Plan.

10. Legal Drafting

The legal drafting process to be informed by officers on the ground, i.e., customs officers, health inspectors, occupational health and safety officials, or environment ministry/department officials etc. This will ensure that any foreseeable problems are addressed at the outset.

11. Regulatory Impact Assessment

There may be a requirement for a **Regulatory Impact Assessment**. A regulatory impact statement provides a high-level summary of the problem being addressed, the options considered and their associated costs and benefits, the consultation undertaken, and the proposed arrangements for implementation and review. If a government determines that this step is necessary, examples from elsewhere in the region can be drawn upon to take advantage of relevant analysis.

Regulatory Impact Statement for Asbestos Ban Case Study - New Zealand

This provides a case study for what a Regulatory Impact Statement addresses. The Impact Statement can be viewed in the publication "Prohibiting the Importation of Asbestos Containing Products - 29 September 2016 - Regulatory Impact Statement" - Ministry for the Environment. Their impact assessment process reviewed available measures to ban the import of ACM, including non-regulatory measures such as awareness raising. The impacts were measured in terms of health, risk management, effectiveness in addressing the identified problem, and cost to business.
https://www.treasury.govt.nz/publications/risa/regulatory-impact-statement-prohibiting-importation-asbestos-containing-products

12. Consultation
Develop and implement consultation activities to test the policy and draft legislative instruments.

13. Political Support
Following the outcomes of the consultation on the Legislative Impact Analysis, confirm continued political support to introduce the system.

14. Confirm System Needs and Expenses
Utilising the design of the system, and the outcomes of the Asbestos and Asbestos Containing Materials National Action Plan, confirm any infrastructure, equipment, and training needed to implement the reforms.

15. Legislative Adoption Process
Once the reforms are confirmed through stakeholder consultation, and legislation drafted, and a clear understanding of the various infrastructure and contracts needed, seek the formal government adoption of the legislative instruments and the approval to implement the system. Approval is needed at this point, as past here, funding is required to engage contracts, build infrastructure, purchase equipment, implement training, and commence widespread community and industry engagement and awareness of the soon to be implemented system.

Dealing with Asbestos and ACMs as Wastes

When a product, substance, or thing is banned under law it may immediately be defined as a waste and therefore become subject to the waste management laws of the country in which it is situated. If the product or substance is, or contains, asbestos then it will inevitably be classified under the relevant laws as a hazardous waste, and special requirements should be applied to its handling, collection, containment, transportation, and disposal.

Challenges faced with the management of hazardous wastes are:

- access to appropriate disposal facilities,
- resource constraints,
- poor capacity for hazardous waste management amongst waste workers.

It is recommended that an Asbestos and ACM National Action Plan should consider which disposal sites can accept asbestos waste, and how to safely transport to this facility. Provision of personal protective equipment must be considered by the agency responsible for the handling, transport, and disposal of asbestos waste. Many countries operate a registration system, where only trained and certified practitioners can demolish, handle, transport and dispose of asbestos waste. Whilst this has merit in a larger economy, this may create a bottle neck in smaller Pacific economies where emigration patterns could potentially lead to no certified practitioners being available in country to undertake the work. Each country must consider how to regularly train building and transport contractors, waste management workers, and community members on asbestos awareness and protocols that must be followed whenever identifying, removing, demolishing, storing, transporting, and disposing of asbestos and ACM.

16. Customs and Finance System Creation
Develop and implement all system design needs to enable customs officials to impose the system on imports; and environmental compliance staff to undertake necessary industry compliance inspections.

17. Government Staff Training
Training of enforcement officers is likely to include customs and border control staff, and the lead agency for enforcing the ban of asbestos and ACM use (e.g., public health officers, environment officers, or Worker Health and Safety officers). The capacity building will be assested by developing clear procedural documents, such as the Asbestos Code of Practice, which can include inventories and visual charts to identify asbestos and suspected asbestos containing materials. An important implementation measure is to review border control and customs systems to ensure appropriate measures are in place for identification and response.

18. Community & Industry Awareness
Provide an understanding of which products can no longer be imported or used, which products are at risk of containing asbestos and any source countries where asbestos and asbestos containing materials have a higher risk of occurrence. Information and communication materials are integral to informing importers and potential users of asbestos and asbestos containing materials. This information can also be distributed to the public, given the amount of goods provided from family members living abroad who assist relatives through supply of building materials.

19. System Implementation

Implement the system as designed. Ensure open and transparent processes and continue to actively engage with the public, and waste industry on the operation and use of the system.

20. Monitoring, Evaluation & Auditing

Implement a monitoring, evaluation, and auditing system, which is a critical component of the Asbestos and Asbestos Containing Materials National Action Plan to ensure asbestos management system is operating as expected, and that required funding is available to ensure the waste products are managed appropriately and as designed.

21. System Expansion & Improvement

Once the system has been operating successfully, review the system to see if improvements can be made, and determine if the system can be extended to outer island communities, or if additional problematic waste items should be added to the system.

Relevant National Laws and Regulations able to implement Asbestos and ACM bans in the Pacific Region and Timor-Leste

Each country has a suite of existing legislative instruments that may currently be able to be used to implement management of asbestos and ACM. Table ??? provides details of existing national legislative instruments bale to be mobilised to address asbestos, currently operating in Pacific Island Countries and Timor-Leste.

Table 3.1 Relevant laws and regulations to implement asbestos and ACM bans in each country

Country	Customs law for the importation ban	Other relevant laws to regulate the use[3] of asbestos and ACM	Other relevant guidelines / plans
Cook Islands	*Customs Revenue and Border Protection Act 2012* – section 90	*Ministry of Health Act 2013* *Environment Act 2003* *Environment (Atiu and Takutea) Regulation 2008* *Public Health Act (2004)*	*National Sustainable Development Plan 2016-2020 (Policy)*
Democratic Republic of Timor-Leste		*Environment Basic Decree Law (No. 26 of 2012)* *Health System Decree (No. 24 of 2004)* *Legislative Authorisation on Environmental Matters (No. 3 of 2012)*	
Federated States of Micronesia		*Environment Protection Act (Title 25)* *Public Health, Safety and Welfare Act (Title 41)* *Chuuk State Clean Environment Act 2018* *Pohnpei Environmental Protection Act 1992 (State Law 3L-26-92) and Solid Waste Regulation 1995*	*Baseline Survey Reports on Used Oil, Recycling, Asbestos (report)*
Fiji	*Customs Act 1986 (No. 11 of 1986)* – section 64	*Health and Safety at Work Act 1996* *Health and Safety at Work (Control of Hazardous Substances) Regulations 2006*	
Kiribati	*Customs Act 2005* (Act No. 02 of 2005) – section 56	*Public Health Ordinance (Cap. 80)* *Environment Act 1999 (No. 9 of 1999)*	

[3] Use refers to the manufacture, sale, use and reuse of asbestos and ACM. If there are no separate provisions in waste or hazardous chemicals and materials laws or regulations, this could be broadened to include the handling, storage, transport and disposal of asbestos and ACM.

Country	Customs law for the importation ban	Other relevant laws to regulate the use[3] of asbestos and ACM	Other relevant guidelines / plans
Republic of Marshall Islands		*Public Health, Safety and Welfare Act [7MIRC Ch 1]* *National Environment Protection Act 1984 [35MIRC Ch 1]* *Solid Waste Regulations 1989* *Sustainable Development Regulations 2006*	*National Environment Management Strategy 2017-2022* *National Strategic Plan 2015-2017*
Nauru	*Customs Act 2014* – section 91	*Public Health Ordinance 1925* *Derelict Sites Management Act 2017* *Naoero Roads Act 2017* *Ports and Navigation Act 2019*	*Distribution and Status of Asbestos: Nauru Country Report 2015*
Niue	*Customs Act 1966* – section 48	*Environment Act 2015* *Public Health Act 1965*	*Solid Waste Strategy 2006* *PacWaste Project: Asbestos Report for Niue 2015* *PacWaste Hazardous Waste Country Profile: Niue 2016*
Palau		*Environment Protection PNC Title 24* *Public Health, Safety and Welfare PNC Title 34* *Solid Waste Regulations 1996* *Solid Waste Management Regulations 2013*	
Papua New Guinea	*Customs Act 1951* (Chapter 101) – section 23	*Environment Act 2000 (No. 64 of 2000)* *Industrial Safety, Health and Welfare Act 1961* *Industrial Safety (Building Works) Order 1967* *National Capital District Commission Act 2001*	
Samoa	*Customs Act 2014*– section 91	*Waste Management Act 2010* *Lands, Survey and Environment Act 1989* *Ministry of Works Act 2002* *National Building Code of Samoa 2017* *Occupational Safety and Health Act 2002* *Occupational Safety and Health Regulations 2017*	*National Chemicals and Hazardous Waste Management Policy 2012* *National Waste Management Strategy 2019-2023*
Solomon Islands	*Customs and Excise Act (Cap. 121)* – Schedule 2	*Environment Act 1998* *Local Government Act (Cap. 117)* *Safety at Work Act 1982* *Workmen's Compensation Act 1996*	*SPREP Solid Waste Management Project 2000* *Review of Natural Resource and Environment Related Legislation: Solomon Islands (SPREP) 2018*

Country	Customs law for the importation ban	Other relevant laws to regulate the use[3] of asbestos and ACM	Other relevant guidelines / plans
Tonga	*Customs and Excise Management Act 2007*– section 45	*Environment Management Act 2010* *Environment Management (Litter and Waste Control) Regulations 2016* *Waste Management Act 2005 (as amended)* *Hazardous Wastes and Chemicals Act 2010* *Public Health Act 2015*	
Tuvalu	*Customs Act (Cap. 55)* – Schedule 2	*Waste Management Act 2017* *Environment Protection Act 2008* *Falekaupule Act 1997* *Environment Protection (Environmental Impact Assessment) Regulations 2014* *Public Health Act (2008 Revised Edition)* *Customs Revenue and Border Protection Act 2014*	*Waste Policy Performance Review 2019 (report)*
Vanuatu	*Customs Act 2013* - section 65	*Waste Management Act 2014* *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and Minamata Convention on Mercury (Ratification) Act 2018* *Waste Management Regulations 2018*	*Vanuatu 2030 The People's Plan: National Sustainable Development Plan 2016-2030*

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