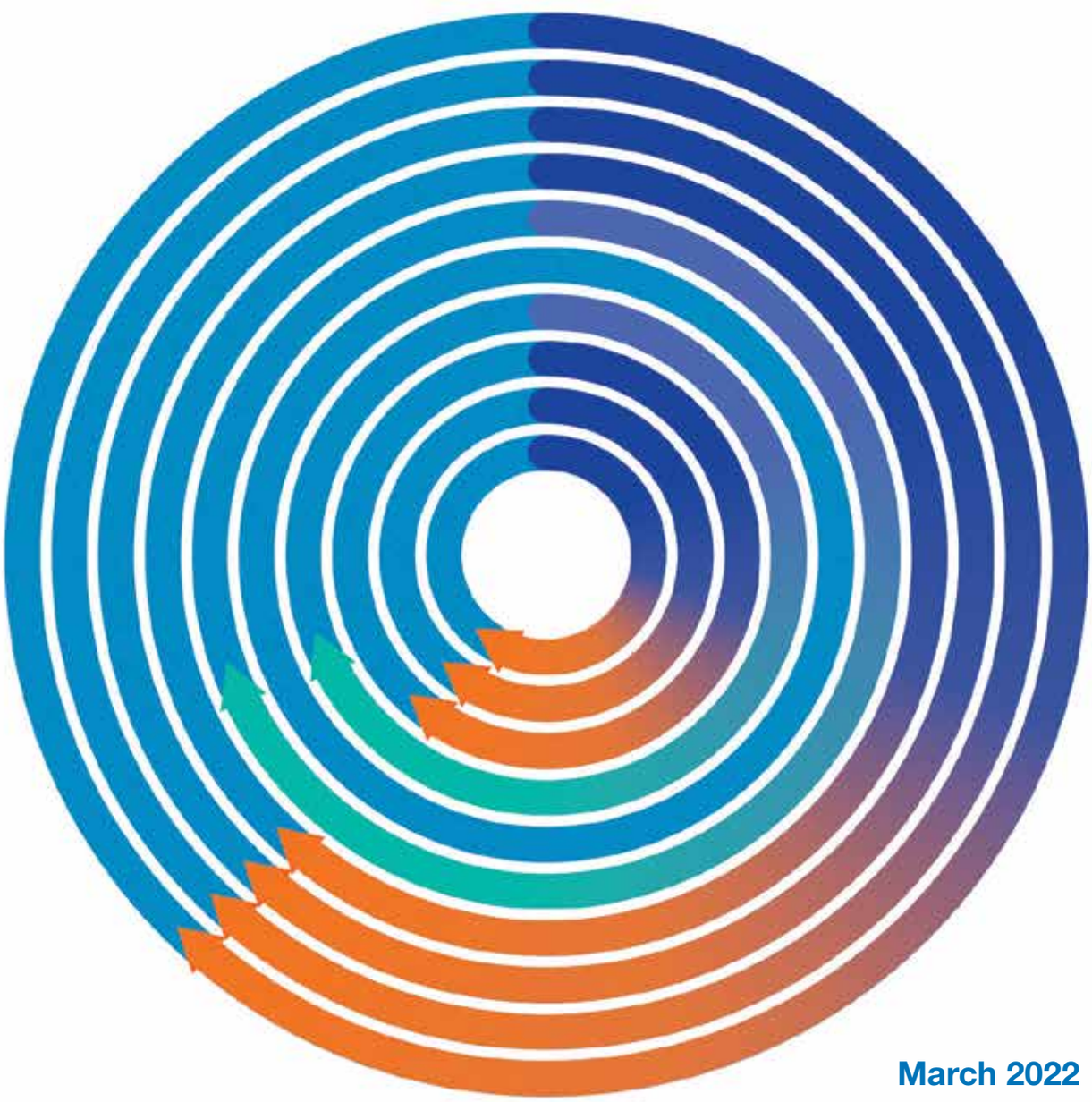
Australian Government

Asbestos Safety and Eradication Agency

Asbestos National Strategic Plan

Implementation 2019–23

Asbestos National Strategic Plan Mid-term Progress Report



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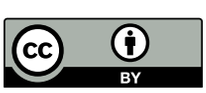
This document has been prepared by:

Australian Government
Asbestos Safety and Eradication Agency



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Executive Summary

This report examines mid-term progress in implementing the **National Strategic Plan for Asbestos Awareness and Management 2019–2023** (Asbestos National Strategic Plan) based on information provided by the Commonwealth, state and territory governments for 2020-2021 and research undertaken by the Asbestos Safety and Eradication Agency (ASEA).

Progress against all nine targets is assessed in this report. It also highlights the challenges identified in meeting some targets, and where incomplete or inconsistent data has made an accurate assessment difficult.

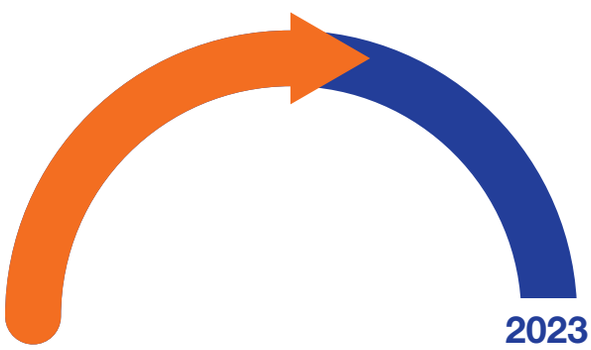
The report acknowledges that progress has been interrupted due to the impact of the COVID pandemic which has competed for government resources that may have been allocated to asbestos awareness and management.

Summary of progress

Target 1

Increased awareness of the health risks of asbestos-containing materials (ACMs) and where to source information (Chapter 3)

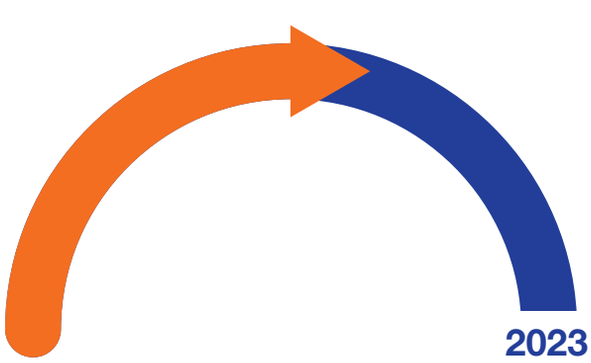
ASEA's research and that of its stakeholders shows that the community know asbestos causes cancer and other diseases, but people do not always act safely when dealing with asbestos due to behavioural barriers including a lack of knowledge of where it can be found in the home.



Target 2

All governments have identified and assessed the risks associated with ACMs in publicly owned and controlled buildings, land and infrastructure (Chapter 4)

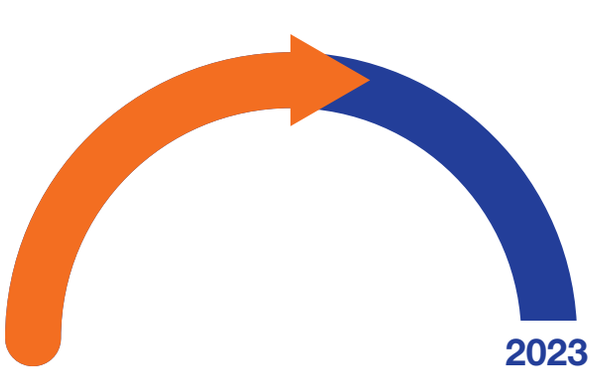
All governments are identifying and assessing the risks associated with ACMs in their assets, but this process is mostly decentralised and managed at agency/departmental level.



Target 3

All jurisdictions have schedules and processes for the prioritised safe removal according to risk of ACMs from public buildings and infrastructure, and safe disposal of that material (Chapter 4)

Governments are at different stages of maturity in relation to a systematic approach to asbestos removal – only a few have planned, prioritised removal schedules.



Target 4

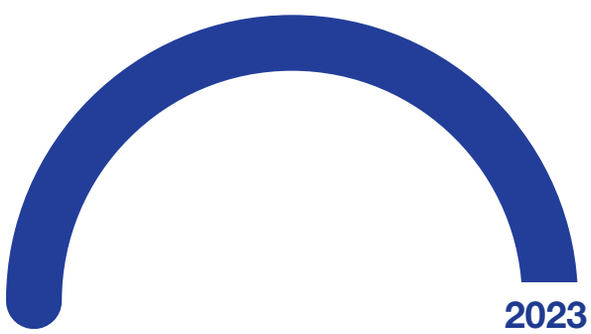
All regulators have in place and have implemented asbestos compliance programs (Chapter 6)

All regulators reported undertaking various asbestos-related compliance activities, including publishing guidance material, videos, safety alerts, conducting webinars and proactive site inspections.

Target 5

All commercial buildings which are required by law to maintain asbestos registers, have up-to-date registers and management plans that are actively being implemented (Chapter 4)

This target aims to measure the extent of compliance with duties to maintain asbestos registers and management plans under WHS laws, which could be considered by WHS regulators as part of their compliance and enforcement activities. However, it could not be measured due to a lack of data reported against this target. The suitability of this target will be considered in the mid-term review of the Asbestos National Strategic Plan.



Target 6

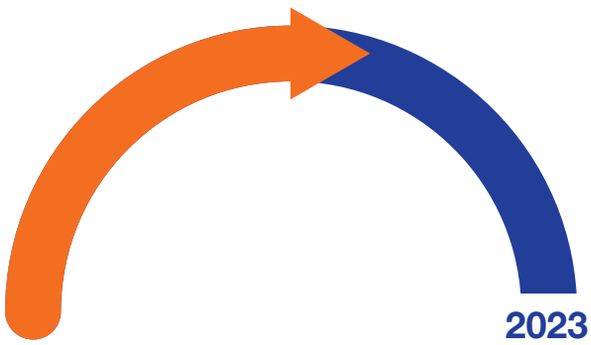
All regulators are investigating, prosecuting and penalising serious known breaches of asbestos-related laws including illegal waste disposal and importation (Chapter 6)

All regulators reported imposing sanctions and prosecuting serious breaches of asbestos-related laws.

Target 7

Easier and cheaper disposal of asbestos waste (Chapter 5)

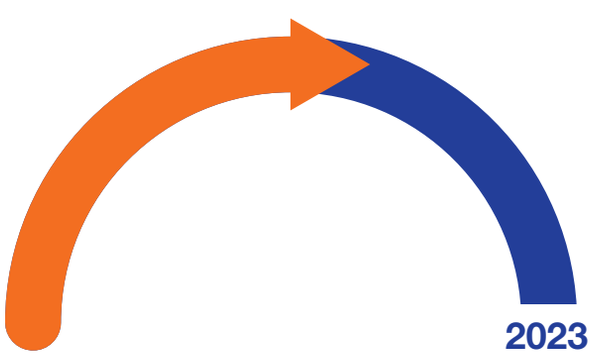
While most jurisdictions have removed the waste levy for domestic loads of separated and wrapped asbestos waste and are implementing strategies to address illegal dumping, more focus is needed on what can be done to meet this target, including assessing asbestos waste infrastructure capacity to deal with rising quantities of asbestos waste.



Target 8

Bans of asbestos production and use in South-East Asia and the Pacific have been influenced and progressed (Chapter 7)

While national level asbestos prohibitions have yet to be implemented in the target countries, some progress has been achieved in Vietnam, Lao People's Democratic Republic, Indonesia and Cambodia through the *Asbestos – Not here, not anywhere* campaign.



Target 9

Develop an evidence-based national picture that assesses the likelihood of asbestos containing materials being present in the residential environment (Chapter 4)

Significant progress has been made towards meeting Target 9 with the completion of the asbestos cement roof hotspots study during the reporting period.

Asbestos-related disease rates in Australia are not yet reducing and the impact of Australia's complete ban on asbestos, which has been in place for almost 20 years, is not yet obvious.

This is not unexpected, given the long latency of asbestos-related diseases and the continued presence of asbestos in the built environment. This means that we must continue to be vigilant in ensuring that public health policies and practices to prevent asbestos exposure are effective.

The mid-term review of the Asbestos National Strategic Plan will provide further opportunity to refine data collection and reporting systems, as well as address any gaps in meeting the targets.

1. Introduction

This report aims to provide a national picture of Australia's collective efforts in eliminating asbestos-related diseases and highlights opportunities to address any gaps in achieving this aim.

It examines mid-term progress in implementing the National Strategic Plan for Asbestos Awareness and Management 2019–2023 (Asbestos National Strategic Plan) based on information provided by the Commonwealth, state and territory governments for 2020–2021[1] and research undertaken by the Asbestos Safety and Eradication Agency (ASEA).

[1] Apart from Western Australia, which commenced its data collection from 1 July 2021 and has not submitted information at the time of preparing this report.

What is the Asbestos National Strategic Plan?

The Asbestos National Strategic Plan aims to eliminate asbestos-related diseases in Australia by preventing exposure to asbestos fibres.

It has four national priorities to focus strategic actions, which together aim to improve asbestos awareness and management. It also has nine national targets to help measure progress over the life of the plan.

The Commonwealth and all state and territory governments have agreed to implement the Asbestos National Strategic Plan, which commits signatories to develop jurisdictional action plans aligned with the four national priorities and to report progress against the national targets.

ASEA coordinates the implementation of the Asbestos National Strategic Plan. This involves collaborating with stakeholders in the asbestos management system and conducting research to assist governments better manage Australia's asbestos legacy and plan effectively for its eventual removal and disposal.

ASEA also collects information it receives from each jurisdiction against the national targets to review and report on the Asbestos National Strategic Plan's progress.

Why have a National Strategic Plan?

The management and regulation of asbestos in Australia is spread across three tiers of government at the local, state/territory and the federal level.

Asbestos exposure risks are not only confined to workplaces but are also public health and environmental issues. Consequently, there are numerous government agencies involved in asbestos management.

The Asbestos National Strategic Plan ensures all governments across Australia are working cooperatively towards a common goal and it also brings government agencies together within each jurisdiction to ensure actions are coordinated.

How are governments implementing the Asbestos National Strategic Plan?

Implementation of the Asbestos National Strategic Plan within a jurisdiction is best achieved through an interagency coordination committee or group consisting of representatives from all government agencies that have asbestos-related responsibilities. Its functions should include:

- coordinating the development and implementation of an asbestos action plan aligned with Asbestos National Strategic Plan as far as possible, and
- collecting jurisdictional data against the national targets and reporting annually to ASEA at the end of each financial year.

Most governments have now set up asbestos coordination groups within their jurisdiction and are developing or updating local action plans for asbestos awareness and management.

ASEA supported governments in their implementation of the Asbestos National Strategic Plan by:

- providing guidance on how to develop action plans and how to interpret and measure the national targets to ensure a consistent approach is taken to data collection and reporting
- establishing a dedicated website accessible only to government officials that provides an online reporting tool and resources to assist governments address various asbestos issues
- participating in interagency coordination group meetings, and
- hosting an annual forum where government agencies with asbestos-related responsibilities come together to share information, learn from each other and collaborate.

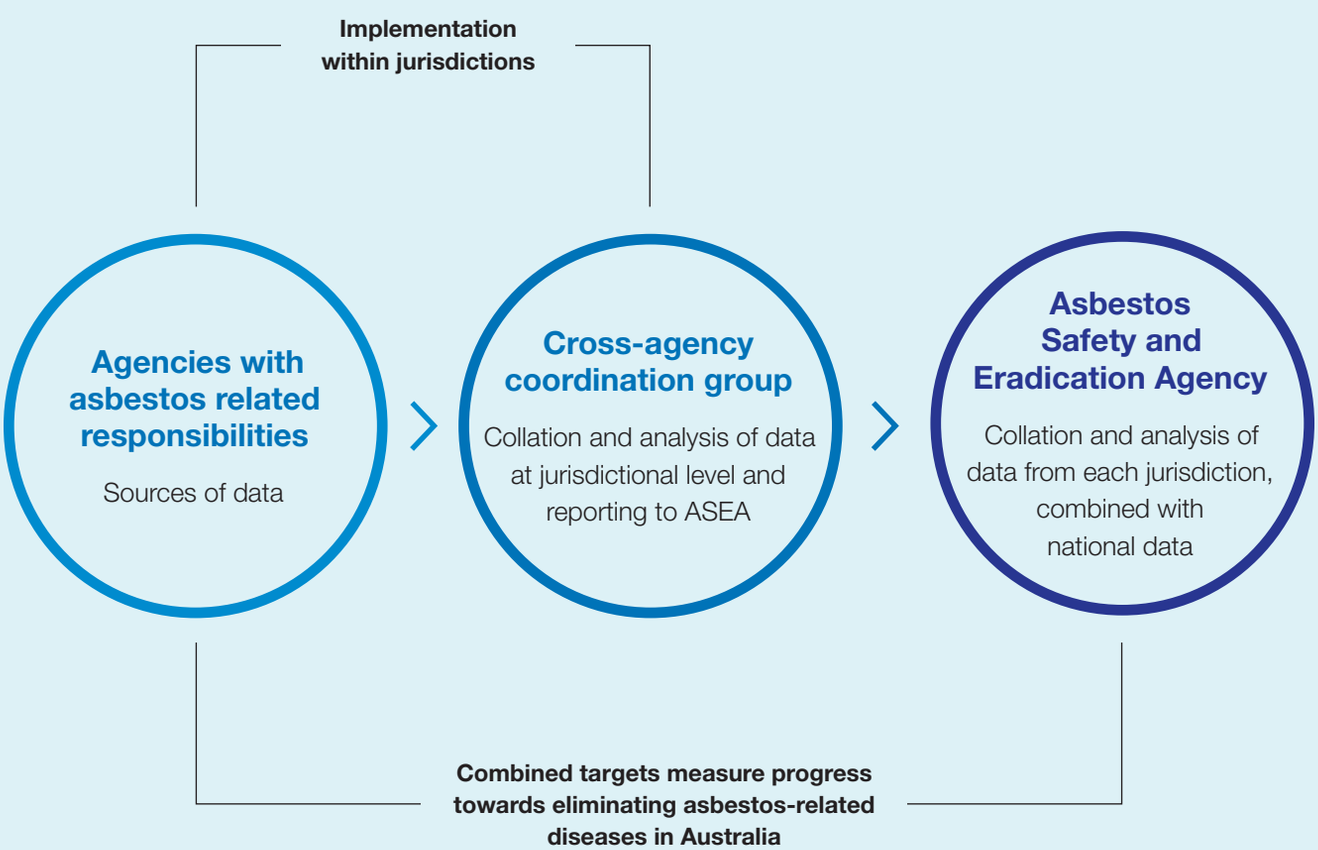
Reporting methodology

The process for reporting progress against the Asbestos National Strategic Plan is shown in Figure 1.

It is the first time that governments have coordinated data collection from relevant agencies within their jurisdictions. Jurisdictions submitted their data for 2020–2021 using ASEA's online reporting form.

Jurisdictions can use their data to measure their own progress at a whole-of-government level and identify areas for improvement within the jurisdiction, while also demonstrating that the jurisdiction is contributing nationally to the aim of the Asbestos National Strategic Plan.

Figure 1: Measuring and reporting progress under the Asbestos National Strategic Plan



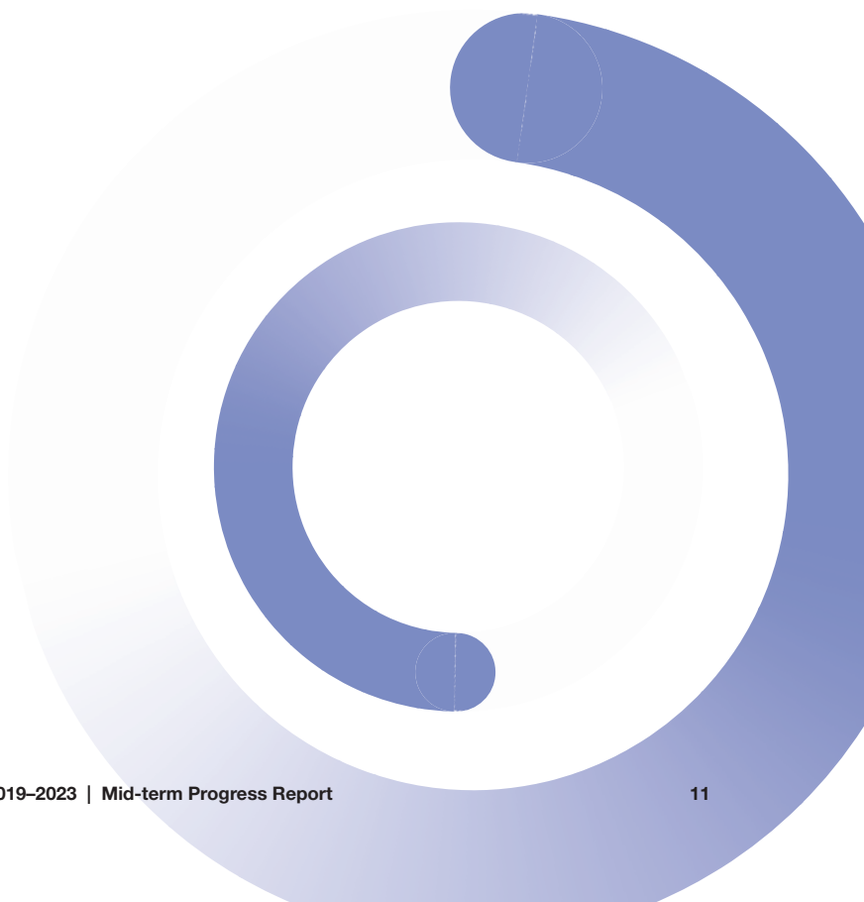
The structure of this report

The report commences with an overview of asbestos-related disease statistics, given the aim of the Asbestos National Strategic Plan. Although the data reflects historical asbestos exposure, over time the trends in asbestos-related disease rates will indicate whether we are on track to eliminate these diseases in Australia.

The remaining chapters in this report align with the four priority actions in the Asbestos National Strategic Plan. Each of the targets that are relevant to those priorities are discussed. An additional chapter on compliance and enforcement covers regulatory activities under targets four and six. Progress against all nine targets is assessed in this report, although not strictly in their sequential order.

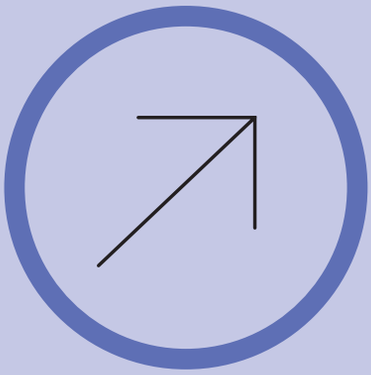
In addition to the information provided by jurisdictions, this report includes national data and research from ASEA relevant to the targets, for example results from national asbestos awareness surveys and research estimating the extent of asbestos materials remaining in the built environment.

Each chapter concludes with ASEA's observations of progress against the national targets, the challenges identified in meeting some targets, and where incomplete or inconsistent data has made an accurate assessment difficult. Ideas on improvements and next steps are also proposed which will inform the mid-term review of the Asbestos National Strategic Plan.



Key observations

- Although the implementation phase of the Asbestos National Strategic Plan is at its midpoint, progress has been delayed due to the impact of the COVID-19 pandemic which has competed for government resources that may have been allocated to asbestos awareness and management. The increase in silica exposures in workplaces has also dominated the attention of work health and safety regulators.
- The benefit of having a national strategic plan and a national body dedicated to asbestos issues has been evident during this period, as the spotlight and momentum could be maintained.
- The reporting showed that governments are still strengthening their asbestos data collection and coordination capabilities and consequently information for some targets is incomplete.



Next steps

- The mid-term review of the Asbestos National Strategic Plan will provide further opportunity to refine the data collection and online reporting system, and also address any gaps in meeting the targets.

2. Asbestos-related diseases

The aim of the Asbestos National Strategic Plan is to eliminate asbestos-related diseases in Australia by preventing exposure to asbestos fibres.

Exposure to asbestos fibres can cause mesothelioma (cancer of the mesothelial cells which cover most internal organs), asbestosis and cancer of the lung, ovary, and larynx. Collectively, these diseases are known as asbestos-related diseases (ARDs).

ARDs usually develop decades after asbestos exposure has occurred. Therefore, we will not know if our current efforts to prevent asbestos exposure are successful until many years to come.

Data on the incidence of ARDs outlined in this section are mainly related to past occupational exposures that occurred before more stringent asbestos regulations and workplace safety practices came into effect and are therefore not indicative of current risk in workplaces today.

Types of diseases

All forms of asbestos can cause cancer and there is no level of exposure that is known to be safe[2]

Asbestos is the only known cause of asbestosis and is the predominant cause of mesothelioma.[3, 4]

Cancer of the lung, larynx and ovary are also known to be caused by other carcinogenic agents in addition to asbestos.[5]

Having knowledge of a person's history of asbestos exposure is important to assist in the early diagnosis of asbestosis and mesothelioma and is critical for accurately attributing asbestos exposure as the cause of other diseases such as lung cancer.

ARDs are often diagnosed at a late stage in the disease when they are more difficult to treat. As a result, survival from these diseases can be low.[6]

People diagnosed with mesothelioma and lung cancer have a less than 1 in 5 chance, on average, of surviving at least 5 years after being diagnosed.[7] The median survival for patients diagnosed with mesothelioma is as little as 1 year.[8]

Whilst asbestosis is irreversible, treatment can slow progression of the disease and help sufferers to live many years after their diagnosis.[9]

Treatment for ovarian and laryngeal cancer can be very effective when these cancers are caught at an early stage, but once the cancer has already spread throughout the body, these diseases are also usually fatal.[10, 11, 12]

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2 World Health Organisation: Asbestos: elimination of asbestos-related diseases (who.int)

3 Asbestosis and Mesothelioma Association of Australia: Asbestosis Symptoms, Diagnosis, Treatment, Support

4 NCCN Clinical Practice Guidelines in Oncology: Malignant Pleural Mesothelioma, 2021

5 List of classifications by cancer sites with sufficient or limited evidence in humans, IARC Monographs Volumes 1–130a, updated December 2021

6 Cancer Council Australia: Understanding Lung Cancer: A guide for people with cancer, their families and friends

7 Australian Institute of Health and Welfare: Cancer in Australia 2021. Cancer series no. 133. Cat. no. CAN 144

8 Mesothelioma in Australia 2020, Australian Institute of Health and Welfare

9 Asbestosis and Mesothelioma Association of Australia: Asbestosis Symptoms, Diagnosis, Treatment, Support

10 Understanding Ovarian Cancer: A guide for people with cancer, their families and friends, Cancer Council Australia, 2020

11 https://www.asbestos.com/cancer/laryngeal/

12 Cancer in Australia 2021. Cancer series no. 133. Cat. no. CAN 144

Deaths from asbestos-related diseases

Estimates of the number of deaths from ARDs in Australia are reported through the Global Burden of Disease (GBD) study[13], a collaboration of 7,000 researchers from 200 countries. The GBD program assesses disease burden from major diseases, injuries, and risk factors using data collected between 1990 and 2019.

Deaths from ARDs are those deaths that the GBD study has attributed to the risk factor of past occupational asbestos exposure.

An estimated 4,449 Australians died from asbestos related diseases in 2019, an increase of over 100 deaths since 2018. Of the estimated deaths in 2019:

3,307
due to lung cancer

802
due to mesothelioma

148
due to asbestosis

144
due to ovarian cancer

48
due to cancer of the larynx

The number of deaths due to ARDs in Australia has continued to increase steadily for both men and women between 1990 and 2019 (the period currently covered by the GBD study – see Figure 2).

In 2019, Australia's death rate from ARDs was around 18 deaths per 100,000 of the population. The rate was 30 deaths per 100,000 for men and 7 deaths per 100,000 for women.

[13] Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2020. Available from http://ghdx.healthdata.org/gbd-results-tool

Lung cancer

Australia's death rates from asbestos-related lung cancer are one of the highest amongst high income countries, at 23 deaths per 100,000 for men and 6 deaths per 100,000 for women.

It is estimated that one third of all lung cancer deaths in Australia in 2019 were caused by past exposure to asbestos. The number of deaths from asbestos-related lung cancer continues to rise each year in Australia for both men and women. The number of women dying from the disease has more than doubled from 202 deaths in 1990 to 563 in 2019 and increased for men from 2,181 deaths to 2,745 deaths in the same period.

Mesothelioma

Australia had the third highest death rate from mesothelioma amongst high income countries in 2019, at around 3 deaths per 100,000 of the population.

Asbestosis

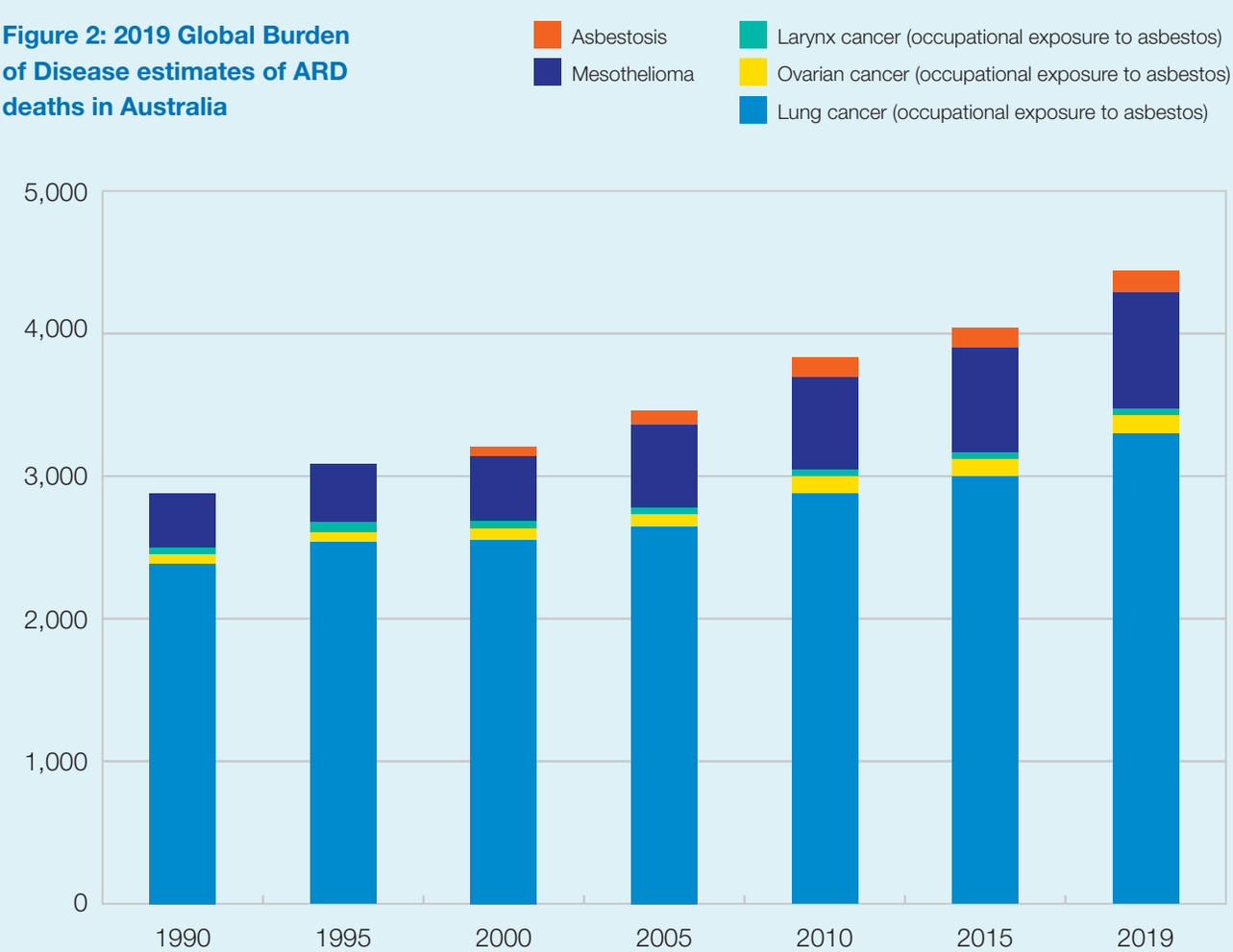
The number of deaths from asbestosis have increased from 4 deaths in 1990 to 148 deaths in 2019.

Other cancers

Deaths from asbestos-related ovarian cancer have increased from 72 deaths in 1990 to 114 deaths in 2019. It is estimated that 13% of all ovarian cancer deaths in Australia in 2019 were caused by past exposure to asbestos.

Deaths from cancer of larynx are also relatively low compared to other asbestos-related diseases and the number of deaths from this disease have remained steady, with 47 deaths in 1990 and 48 deaths in 2019.

Figure 2: 2019 Global Burden of Disease estimates of ARD deaths in Australia



Australian Mesothelioma Registry

The Australian Mesothelioma Registry (AMR) is a registry of all diagnosed cases of mesothelioma in Australia since 1 July 2010. The AMR captures information about mesothelioma incidence and mortality, and asbestos exposure.

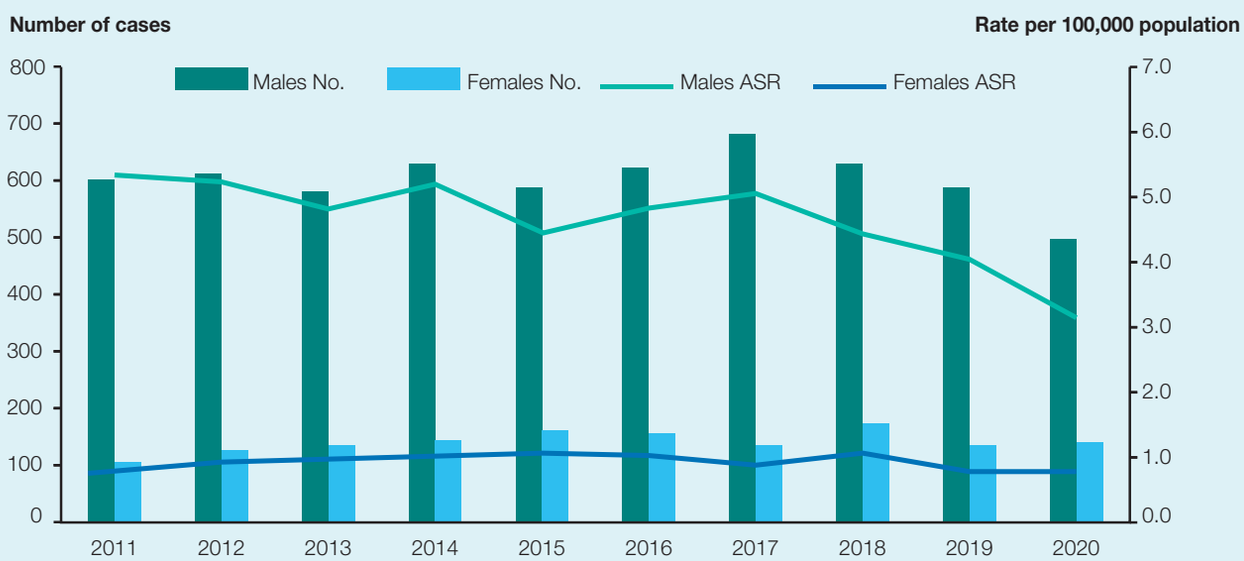
The AMR is the most up-to-date source of data on mesothelioma incidence (number of new cases) in Australia.[14] Data from the Mesothelioma in Australia 2020 report shows that the number of people diagnosed with, and dying from, mesothelioma in Australia has remained relatively steady at approximately 700 per year.

In 2020:[15]

- 642 cases of mesothelioma were diagnosed – the median age at diagnosis was 75.
- 696 deaths of people with mesothelioma were recorded – a mortality rate of 2.1 deaths per 100,000 population.

In Australia, the majority of mesothelioma patients are male, however the number of women with the disease is increasing (see Figure 3 below).

Figure 3: Number and age-standardised rate (ASR) per 100,000 people diagnosed with mesothelioma, by year and sex, 2011 to 2020



Note: Rates have been age-standardised to the 2001 Australian Standard Population
Source: AIHW analysis of AMR data at 1 May 2021; Table A2 in Mesothelioma in Australia 2020—data tables.

[14] Whilst the AMR reports actual recorded incidence and mortality for mesothelioma in Australia, the GBD estimates disease based on known risk factors and other available data. For this reason, estimates reported through the GDB study may differ from year to year to those captured by the AMR. Both data sources are valuable for studying mesothelioma prevalence.

[15] Not all cases of mesothelioma are reported to the AMR in the year that they are diagnosed, so the total number of cases for each year of reporting will continue to show an increase in subsequent years.

Asbestos exposure

Since 1 July 2010, the AMR has collected asbestos exposure data from consenting mesothelioma patients using a combination of questionnaire and telephone interview.

Of the 1,028 people for whom exposure was detected (see Table 1 below):

Table 1: Occupational and non-occupational exposure assessment, by sex, 2010–2020

Any exposure indicated	Men		Women		Persons	
	No.	%	No.	%	No.	%
Occupational exposure only	124	15.5	1	0.5	125	12.2
Non-occupational exposure only	177	21.5	191	93.2	368	35.8
Both occupational & non-occupational exposure	522	63.4	13	6.3	535	52
Total	**823**	**100**	**205**	**100**	**1,028**	**100**

Source: AIHW analysis of AMR data at 1 May 2021, based on interviews completed among people who were diagnosed with mesothelioma between 1 July 2010–31 December 2020.

Among participants who received occupational asbestos exposure assessments, probable occupational exposure was identified in:

- 74% of people who had metal fitter/turner/toolmaker jobs
- 85% of people who had plumber/gasfitter jobs
- 84% of people in electrical trades
- 85% of those in other building trades
- 100% of marine engineers
- 72% of people with shipwright/boat builder jobs
- 67% of people who carried out automotive maintenance, and
- 49% of those with driving jobs.

The most common circumstances in which non-occupational asbestos exposure was assessed as possible or probable were among those who reported having:

- undertaken major home renovations that involved asbestos products (including paid work)
- lived in a house undergoing renovations
- serviced car brakes/clutch (excluding paid work)
- lived in the same home as someone with a job where they were exposed to asbestos and who came home dusty
- lived in a house made of fibro that was built between 1947 and 1987.

Advances in treatment for mesothelioma and lung cancer

Mesothelioma and lung cancer outcomes have improved in recent years due to more sensitive diagnostic tools that support earlier diagnosis and improved treatment methods, including advances in surgical techniques and new chemotherapy combinations. Advances in **immunotherapy** and **targeted therapy** also offer significant benefits to mesothelioma and lung cancer patients since they can be very effective at treating cancer with fewer side effects.

Immunotherapy aims to slow the growth of cancer or kill cancer cells by altering the body's immune response and is usually associated with less side effects than conventional chemotherapy. Unfortunately, immunotherapy does not work for everyone with mesothelioma, and therapy response for individual patients cannot be predicted at present, but some people may have good results.[16]

Targeted therapy is a type of drug treatment that specifically works on the changes that make a cancer cell malignant. This slows cancer growth and spread without damaging healthy cells. Targeted therapies sometimes work when standard chemotherapy drugs don't, and it can have less severe side effects.

Both **immunotherapy** and **targeted therapy** are available to lung cancer patients on the Pharmaceutical Benefits Scheme (PBS). Following several clinical trials, immunotherapy is also now available to mesothelioma patients through the PBS.

As researchers learn more about gene and protein changes in mesothelioma, they are hoping that targeted therapy might work for mesothelioma.[17]

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[16] Understanding Mesothelioma: A guide for people with cancer, their families and friends, Cancer Council Australia, 2019

[17] Targeted Therapy for Cancer – National Cancer Institute

Key observations

- Asbestos-related diseases in Australia are not yet reducing and the impact of Australia's complete ban on asbestos, which has been in place for almost 20 years, is not yet obvious. This is not unexpected, given the long latency of asbestos-related diseases and the continued presence of asbestos in the built environment. This means that we must continue to be vigilant in ensuring that public health policies and practices to prevent asbestos exposure are effective.
- There is a lack of information about non-occupational exposures, which is likely to be the main exposure in the future. Activities such as undertaking do-it-yourself (DIY) home renovations or living in a home undergoing renovation present an ongoing risk. This requires an ongoing effort in raising public awareness of asbestos exposure risks.

Next steps

- Tracking asbestos-related diseases will help inform policy makers of the effectiveness of actions to address Australia's asbestos legacy and of ongoing or new occupational or non-occupational asbestos exposure risks.
- ASEA will continue monitoring data on asbestos-related diseases and promote research to improve treatment and prevention of asbestos-related diseases.

3. Asbestos Awareness

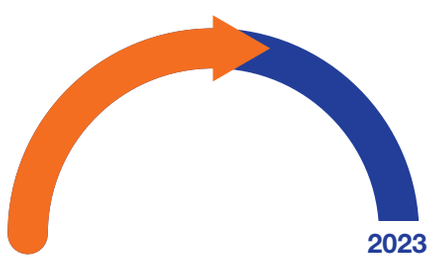
Priority 1 of the Asbestos National Strategic Plan aims to improve asbestos awareness with governments and community bodies collaborating to provide trusted, practical, easily understood and accessible information about asbestos risks in homes, workplaces and the environment.

Research on asbestos awareness and behaviour

Target 1

Increased awareness of the health risks of ACMs and where to source information among the following:

- all tradespersons whose work brings them into contact with ACMs
- all workers in workplaces with ACMs
- 80% of homeowners and occupiers, and
- 80% of property managers and real estate agents.



The data for measuring progress towards this target is primarily drawn from surveys that gauge asbestos awareness levels, knowledge, attitudes and behaviour from the targeted cohorts.

National surveys

During the first phase of the Asbestos National Strategic Plan three national bi-annual Asbestos Awareness and Attitudes surveys were conducted in 2014, 2016 and 2018 providing a benchmark for the surveys conducted under the second phase.

COVID-19 pandemic home improvement survey results

In July 2020, SEC Newgate Australia was engaged to conduct a national online survey on asbestos and DIY activities (home maintenance, repairs and improvements) during the COVID-19 pandemic. The purpose of the survey was to examine the anecdotal evidence that there had been a significant increase in the amount of DIY home renovation projects while people were working or isolated at home. It found the most common motivations for carrying out DIY were improving appeal or comfort (46%), or to do so in an affordable way (44%) and three in ten specifically cited reasons related to the lockdown. Figure 4 shows the main results from the survey.

Figure 4: Key results of COVID-19 home improvement survey

40%

40% have worked on a **risky property** built between 1940–1990, decades of greatest concern – and that's **within the last five years alone.**

78%

78% would like **further information** primarily preferring point-of-sale information at **hardware or home improvement stores.**

29%

29% cited **COVID-related motivations** for considering DIY home improvements, with a **high proportion of DIY jobs having commenced since March.**

35%

At least 35% **acted inappropriately** when disposing of asbestos (e.g. binning it, burying it or burning it) – seen as **easier than finding a licenced removalist or an asbestos waste facility.**

Asbestos was low on the risk radar

Only 5% cited it when considering DIY dangers, but it topped the list of potential DIY risks when prompted.

Knowledge and confidence were low

Only half gave a higher confidence rating (7 or more out of 10) in being able to identify or manage asbestos.

Real Estate agents and property managers

At the end of 2020, Faster Horses was engaged to conduct a national survey of real estate agents and property managers to determine awareness levels and attitudes in managing asbestos risks.

The survey found that as a cohort regularly interacting with property buyers, sellers and renters, property managers and real estate agents are generally aware of asbestos risks and are doing the right thing when it comes to disclosing the presence of asbestos at the point of sale or lease.

Property managers were observed to have a slightly higher level of practical knowledge of asbestos, most likely due to having to manage repairs or maintenance involving asbestos.

The survey also found that a majority of property managers and real estate agents mistakenly believed that a pre-sale property inspection covers the presence of asbestos, which means they could be relying on this assumption as opposed to making an overt and proactive disclosure to a purchaser or tenant themselves (see Figure 5).

Figure 5: Key results of real estate agents and property managers survey

Jurisdictional surveys

Victoria

In 2019 the Latrobe Valley Asbestos Taskforce conducted an initial benchmark survey to track changes in the level of awareness, knowledge and attitudes towards asbestos across the Latrobe Valley community. The survey was conducted again in 2020 and identified a high level of awareness of the dangers of asbestos but that the real risks of asbestos exposure for those doing home renovations are not well understood.

The headline results of this survey are:

- 88% agree that asbestos is very common in Australian buildings
- 83% agree that even a small amount of asbestos can be very dangerous
- 96% agree that anyone doing renovations needs to be mindful of asbestos.

The 2020 survey revealed that a third of properties built before 1990 are still not being assessed for asbestos prior to renovation – a similar result to the 2019 survey.[18]

New South Wales

The NSW EPA conducted Social research to improve asbestos management providing baseline information on behaviours in relation to home maintenance, renovation and asbestos waste. Overall, the research found low levels of awareness amongst tradespersons and homeowners.

The headline results of this survey are:

- Less than a quarter of tradespersons sought advice from licensed asbestos professionals and less than half wore protective equipment.
- More than one in four respondents reported disposing of asbestos in unsafe or illegal ways, including leaving it on-site once it had been removed or putting it in a kerbside waste collection bin.
- Almost 50% of adults in NSW currently live in properties containing asbestos but do not know how to handle or dispose of it safely.

Key insights arising from the data are:

- Residential asbestos is a whole community issue reaching far beyond DIY renovators and tradespeople.
- The fundamental motivation to keep safe is impeded by several barriers.
- There is a need to close gaps between knowledge, confidence and behaviour.
- Multi-faceted coordinated effort will reduce knowledge and other barriers.
- Clear, consistent messages are needed from all sources, including professionals.
- The use of fear to evoke safe behaviour must be paired with action steps.
- Influencers need to show leadership to raise salience and show the way.
- Intervention is required earlier than at point of renovation planning.
- Easier and safer options for small asbestos pieces may reduce domestic bin disposal.

[18] Publications – Latrobe Valley Asbestos Taskforce

Queensland

In May 2019, the Queensland Building and Construction Commission commissioned market research into owner builders and their level of awareness and attitude towards asbestos.[19] The survey found that owner builders were mostly aware that asbestos was dangerous but locating where asbestos could be found was still a mystery (see Figure 6).

Figure 6: Key results of Queensland owner builder survey

72%

72% of owner-builders had done some renovation work to a pre-1990 property. **81% conducted some of this work themselves.**

66%

66% of those who completed work had to remove asbestos. **31% did it themselves. 64% used a professional.**

50%

Nearly 50% of owner builders **were not confident** that they could **identify materials that might contain asbestos.**

90%

90% knew asbestos could be in ceilings, roofs & walls. **But did not know** that asbestos can be in **splashbacks, insulation, vinyl/carpet underlay, fencing or fuse boxes.**

[19] Asbestos lurks in more places than you think | Queensland Building and Construction Commission

Awareness levels

Figure 7 below shows the awareness levels of three main knowledge areas amongst the cohorts of tradespersons and homeowners and occupiers, as identified in ASEA's research and that of its stakeholders.

The surveys identified that home improvers and renovators remain a key risk group, however learnings should be taken from NSW's Social Research that the issue extends far beyond that group to the whole community. Key findings include that intervention is required earlier than at the point of renovation, improvement or maintenance and that there are several points at which targeting could occur (e.g. when a property changes ownership or when professionals quote for work).

These findings are applicable not just to NSW, but across Australia. Also applicable are the findings that it is necessary to close the gap between knowledge, confidence and behaviour and to remove the barriers that are impeding safe behaviours. For this to occur there needs to be a better understanding of the differences in age, gender, ethnicity, social and economic status to ensure more targeted messaging.

Figure 7: Asbestos awareness levels of tradespersons, homeowners and occupiers

Asbestos is dangerous to health.

Awareness achieved

Needs simple reinforcement, primarily as a motivator.

Asbestos is common in homes built before 1990 (including locations).

Awareness improving

More targeted advice needed, population cohorts need different strategies.

There are simple ways to stay safe, including by engaging asbestos professionals.

Low awareness

And low motivation to do the right thing – especially around correct disposal with cost and convenience being significant barriers.

Asbestos awareness campaigns

A number of WHS and environment protection regulators conducted awareness campaigns on specific asbestos issues, reported as part of their compliance activities under Target 4 of the Asbestos National Strategic Plan (refer to Chapter 6 of this report).

National Asbestos Awareness Week 2019

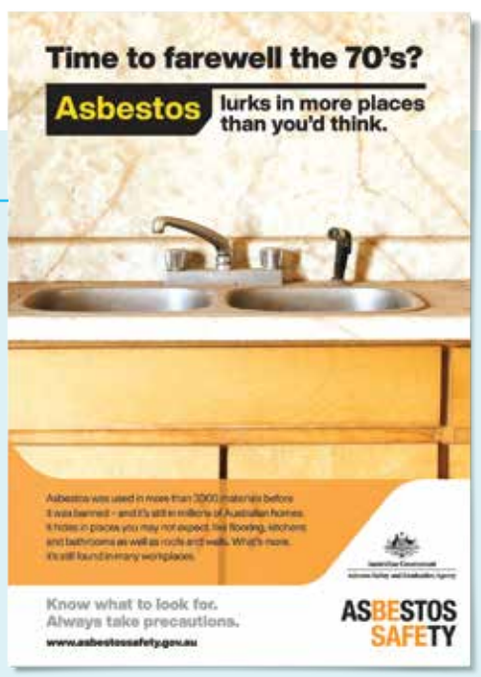
2019 was the first year that ASEA coordinated with jurisdictions, industry and the non-government sector to promote a consistent and national message for National Asbestos Awareness Week (NAAW). *Asbestos lurks in more places than you'd think* was chosen as the message targeted at people renovating or improving their homes, as well as trades people who work in the residential environment.

A small stakeholder pack was produced for the first time, consisting of a fact sheet, posters, social media posts, template media release, template email and newsletter text. Images highlighted areas of homes that aren't often known to contain asbestos, with kitchens and bathrooms as the focus (shown below).

Four states and some industry and non-government groups used the materials (see example below). Most of the jurisdictional activity was on social media. WorkSafe Victoria ran their own trades-targeted campaign using the same slogan. Tradespeople were able to order a mug with the campaign slogan printed on it and post a 'mugshot' on social media. Participants went into the draw to win a $500 gift card. The promotion resulted in 715 visits to the competition landing page and a high level of engagement, specifically with electricians.

There was good media coverage of the week, particularly in WA (as the ASEA conference led into the week) and in South Australia, with a week-long feature on historical blue asbestos in Rundle Mall, Adelaide.

Poster



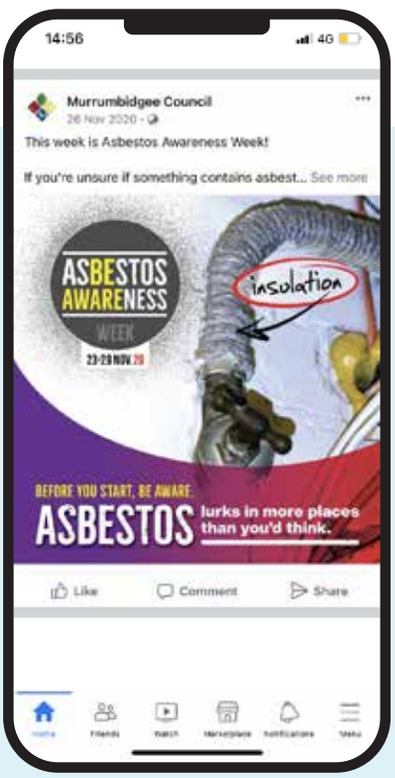
Social Media

National Asbestos Awareness Week 2020

In 2020, a nationally consistent date was achieved for the first time with 110 different government and non-government organisations adopting ASEA's resources with the theme *Asbestos lurks in more places than you think* across social media during the week.

While the COVID pandemic resulted in the inability to hold in-person events during NAAW, jurisdictions reported an increase in website traffic – ASEA reported that NAAW 2020 generated the highest daily and weekly page views for the year.

Social Media



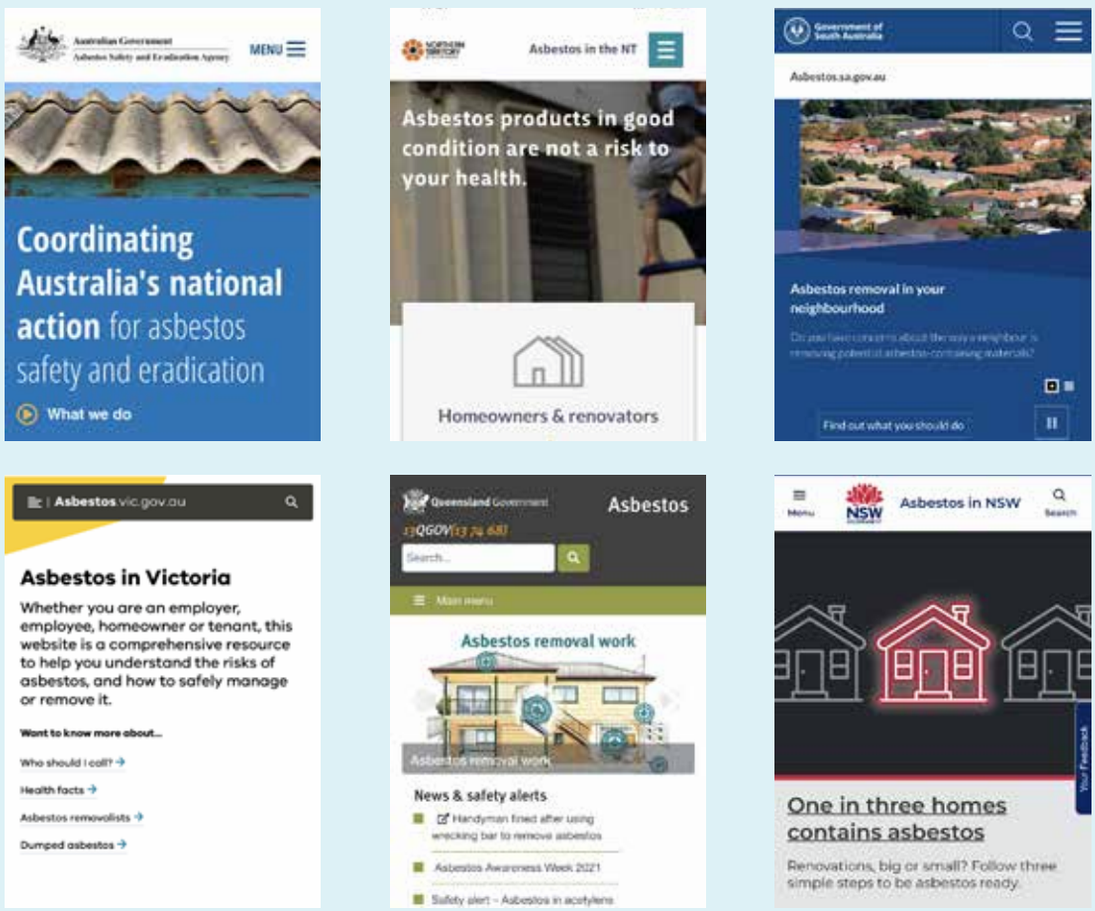
CALD assets

ASEA also engaged a specialist culturally and linguistically diverse (CALD) media agency to deliver the awareness messages across four language communities in Melbourne, Sydney and Brisbane.

Information sources

All jurisdictions have established dedicated asbestos safety websites (Figure 8 below) and reported undertaking asbestos awareness activities against Target 1, mainly directed at homeowners and tradespersons.

Figure 8: Examples of government websites focussed on asbestos information



Asbestos education and training

Another source of information are numerous asbestos awareness training options available for workers, including nationally recognised training, unaccredited asbestos-specific courses and in-house training provided by organisations.

The ACT is the only jurisdiction that requires all workers who are likely to encounter asbestos materials to complete a nationally accredited VET course for asbestos awareness and workers in specific occupations must also be trained in how to work safely with asbestos.

Key observations

- ASEA's research and that of its stakeholders shows that the community know asbestos causes cancer and other diseases, but people do not always act safely when dealing with asbestos due to behavioural barriers including a lack of knowledge of where it can be found in the home.
- Duplication of effort is occurring in relation to conducting surveys and given that results are applicable Australia wide there should be a pooling of resources and sharing of results.
- Numerous asbestos awareness activities are conducted by both government and non-government organisations, however the messages are not always consistent, well targeted or evaluated for their effectiveness.

Next steps

- ASEA will conduct a follow-up COVID-19 pandemic home improvement survey and research the asbestos knowledge, attitudes, behaviours and opportunities for intervention with the following cohorts:
  - Workers in buildings with asbestos-containing materials (ACMs)
  - Homeowners and occupiers
  - Tradespersons whose work brings them into contact with ACMs.
- ASEA will seek opportunities to partner with jurisdictions on research and aim to better understand the populations of interest and locations where there is a high density of ACMs.
- ASEA will build momentum for a national ongoing awareness campaign that is targeted and includes CALD and indigenous communities.
- ASEA will research the asbestos training options for workers entering trades to identify any improvements in education and training for this cohort.

4. Identification, effective management and safe, prioritised removal

Priority 2 of the Asbestos National Strategic Plan aims to improve the accurate identification of ACMs and ensure that they are maintained in a safe state until they can be removed.

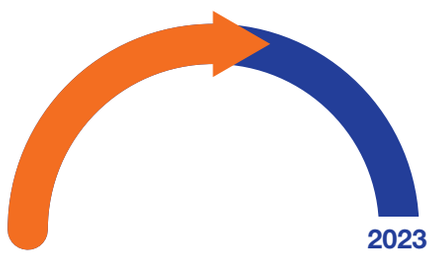
Priority 3 aims to ensure there are risk-based schedules and processes in place for removal.

Asbestos in publicly owned and controlled buildings

Identifying and assessing asbestos risks

Target 2

All governments have identified and assessed the risks associated with ACM's in publicly owned and controlled buildings, land and infrastructure



Target 2 measures the extent to which the Commonwealth, state and territory governments have a systematic approach to effectively identifying and assessing asbestos risks across their assets which enables them to better understand the nature of their asbestos legacy.

There are three key mechanisms by which this target is measured:

- Format of asbestos registers i.e. whether registers are static paper-based documents (e.g. spreadsheet such as Excel or other document formats) or database systems.
- The extent to which asbestos registers are centralised and accessible.
- The extent of consistency in asbestos risk levels to enable whole-of-government assessment of risk and a coordinated approach to remediation.

Governments reported that their asbestos registers are mostly electronically stored and are often part of an asset management or safety management system. Hard copies may be generated on site for practicality purposes.

The extent of consistency in asbestos risk assessments is correlated with the degree of centralisation – agencies that are using centralised asbestos registers were more likely to report using the same risk ratings across their assets.

Although Target 2 can be achieved without a centralised system, having one allows better planning and prioritisation of asbestos removal at a whole-of-government level (part of Target 3).

Victoria is the only jurisdiction that meets all three criteria with a consolidated asbestos register for buildings owned by the Victorian government, as well as a consistent risk assessment model to support prioritised removal of asbestos (see Figure 9). This is facilitated through the Victorian Asbestos Eradication Agency (VAEA).[20]

The Northern Territory, Queensland and South Australia have made progress towards a centralised whole-of-government approach:

- The Northern Territory has a whole-of-government approach to the management of asbestos, including schools. Asbestos removal is based on the assessed level of risk with high risk material deemed a priority. The Northern Territory government updated its Asbestos Management Policy and Strategy for the Northern Territory Government and reported it had 1,167 sites requiring asbestos registers (excluding government housing), with 796 site registers available on a commercial web-based platform called OCTFOLIO.
- Queensland updated its Queensland Government Asbestos Management Policy for its Assets. Queensland government departments may choose to use the Built Environment Materials Information Register (BEMIR) – a multi-department asbestos register managed by QBuild (a business unit of the Queensland Department of Energy and Public Works that provides a range of asbestos management services to departments).
- South Australia has developed a Guideline for Asbestos Management and Removal for Government Sites and established an Asbestos Removal Fund (approximately $1 million per annum) to promote programmed removal of ACM within government buildings. Some government departments use the Strategic Asset Management Information System (SAMIS) to record asset information, including asbestos registers.

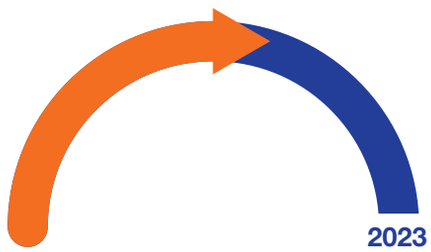
Figure 9: Degree of centralisation of asbestos registers

[20] The VAEA was established in 2016 to prioritise and plan for the removal of asbestos from government owned buildings in Victoria. Infrastructure such as fences, bridges and pipes are outside this scope. Also outside its scope are premises that are leased or sub-leased to tenants by the Director of Housing.

Prioritised safe removal in public buildings

Target 3

All jurisdictions have schedules and processes for the prioritised safe removal according to risk of ACMs from public buildings and infrastructure, and safe disposal of that material



Target 3 measures the schedules and processes governments have implemented to prioritise ACM removal in government owned properties, based on the risk assessment outcomes under Target 2.

These actions include establishing timeframes for removal, preparing work plans, allocating funds and setting up systems to engage appropriately qualified contractors.

Generally, individual agencies are responsible for making decisions on asbestos removal in their assets and funding this work from their budget allocations. Asbestos removal is based on the risk that the ACM poses, and is also undertaken as part of maintenance, asset upgrades and refurbishment work (opportunistic removal). Governments reported that agencies have processes in place to conduct regular ACM surveys and condition assessments and engage qualified asbestos professionals, mostly through pre-qualification schemes or service provider panels.

Only Victoria has a state-wide schedule for the prioritised removal of asbestos from government owned buildings. The VAEA's schedule for prioritised asbestos removal categorises the identified ACMs based on risk. This schedule establishes a coordinated, whole-of-government plan for the ongoing removal of asbestos from its buildings.

Asbestos in schools

Schools have been the focus of large-scale removal programs for most governments:

- In Queensland, asbestos was removed from 196 buildings across 133 state schools during 2020 to 2021, with a further 55 removal works scheduled.
- The Victorian School Building Authority (VSBA) removed all high risk ACMs found in 497 public schools (completed in March 2016). The VSBA then targeted all asbestos which might pose a risk in the future, such as that behind the walls or eaves of older buildings. By the end of 2020, the VSBA had removed this asbestos from 1,287 schools.
- The ACT government allocated $15 million over 4 years in its 2021–2022 budget for the removal of hazardous materials, including asbestos, from public schools.
- In South Australia, asbestos has been removed in over 50 schools as part of a $1.5 billion investment in public education to modernise and upgrade schools.

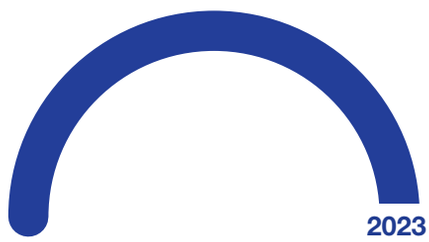
COVID-related stimulus funding to upgrade schools may also include asbestos removal:

- The Tasmanian government's $3.1 billion construction stimulus package for COVID-19 recovery includes a School Revitalisation Maintenance Program worth an initial $10 million, with an additional $6.5 million investment added in July 2020.
- The NSW Department of Education is investing $7 billion over the next 4 years to deliver 200 new and upgraded schools.

Asbestos in commercial workplaces

Target 5

All commercial buildings which are required by law to maintain asbestos registers, have up-to-date registers and management plans that are actively being implemented



Asbestos registers and management plans are used to prevent asbestos exposure by alerting workers to the presence of asbestos and to make decisions on asbestos management and removal.

The extent of compliance with duties to maintain asbestos registers and management plans under WHS laws could be measured by WHS regulators as part of their compliance and enforcement activities. For example, SafeWork SA audited 16 workplaces that required asbestos registers as part of its 2021 compliance campaign on licensed asbestos removal practices and found 87% were compliant.[21]

However, no information on the extent of compliance with asbestos registers and management plans in commercial buildings was submitted by governments in reporting against this target. This indicates that the suitability of Target 5, which merely iterates a legal requirement, needs to be reconsidered.

[21] Compliance Program Audit Reports | SafeWork SA

Asbestos in the residential environment

Target 9

Develop an evidence-based national picture that assesses the likelihood of asbestos containing materials being present in the residential environment

Target 9 aims to develop a national picture which shows the suburbs with the highest likelihood of asbestos containing materials being present. The 'national picture' will be achieved by using authoritative data sources with information on asbestos presence or absence. 'Likelihood' is the possibility that a home would contain ACMs.

As outlined in Chapter 2 of this report, rates of mesothelioma have risen over the last few decades, with non-occupational exposure (particularly exposures in the home setting) of increasing concern. Artificial Intelligence (AI) is being used for the first time to find solutions to manage Australia's residential asbestos legacy.

The aim is to develop a residential asbestos 'heatmap' estimating the concentration of residential buildings thought to contain asbestos within geographic regions in Australia, based on predictive modelling. Since not all buildings within Australia have been inspected for asbestos, we must build a model, based on known attributes from available residential data, that can accurately predict the number of buildings in an area that may contain asbestos.

This work can inform proactive policy development and initiatives such as identifying optimal locations for future disposal facilities, removal programs, disaster recovery planning and targeted home renovator awareness campaigns.

Residential heatmap stages

This work is being undertaken in a systematic way and started with a smaller-scale study which was focussed on residential asbestos cement roofing – the *Residential asbestos cement roof hotspots* study described below. This was a proof-of-concept study to validate the application of cutting-edge technologies such as urban analytics, high-resolution imagery, AI, machine learning and predictive modelling.

The datasets generated in the *Residential asbestos cement roof hotspots* study will be combined with other residential asbestos datasets collected from government and non-government sources. The national picture will be progressively enhanced to include more granular information on the likelihood of homes having ACMs both externally and internally. Knowledge about asbestos in the whole home is the ultimate aim in creating a national residential asbestos heatmap (see Figure 10 below). The first heatmap will also inform where we need to focus our efforts in each of these separate stages, in a continuous improvement loop.

Figure 10: The national residential asbestos heatmap research plan

finalised a proof-of-concept, data-driven AI study to detect asbestos cement roofs, which are a discrete and discernible external building product, especially the corrugated (or Super 6) design type.

Roofing imagery is a relatively effortless input for detection-based AI approaches, and corrugated asbestos cement roofing predisposes itself to being easily accessible via high-resolution satellite and aerial imagery. These factors allowed information on the location and density of asbestos cement roofing in Australian homes across the country to be compiled in a time-efficient, cost-effective and non-invasive manner.

ASEA commissioned Urban Analytics and Complex Systems (UACS) Consulting to undertake the asbestos cement roof hotspots study. Using urban analytics to scan the whole of Australia (at the Statistical Area 2 or SA2 level), localities were ranked for the predicted presence of ACMs anywhere in the home and the potential for disturbance, based on various socio-economic and property development factors. Top-ranked localities were then screened through a targeted review of imagery by an experienced asbestos assessor, to find locations with a significant presence of asbestos cement roofing.

113 such 'hotspot' locations were subsequently identified for further analysis of the density of asbestos cement roofing. Localities in Northern Territory, ACT and Tasmania did not reveal significant amounts of asbestos cement roofing in pre-screening and so these jurisdictions were excluded from further analysis.

In total, over 13,300 residential asbestos cement roofs were detected across the study localities, which covered an area of 771 km^2, with a population of approximately 1.7 million people living in 800,000 dwellings. These findings were in five jurisdictions and encompassed 44 local government areas (LGAs).

On average, asbestos cement roofs were observed in approximately 2 out of 100 dwellings (1.7%). Asbestos cement roofing was found to differing extents, with highest concentrations mainly in CBD fringing areas or within 50 km from the coast.

The typology of asbestos cement roofing also differed across study localities, with smaller average roof footprints reflecting asbestos cement roofing presence in outbuildings, as opposed to being part of the main dwelling of a home.

The total amount of residential asbestos cement roofing identified in this small-scale study equates to approximately 23,000 tonnes or 1.48 million square metres—roughly the size of over 200 football fields. Figure 11 summarises the findings by jurisdiction.

Figure 11: The main findings of the asbestos cement roof hotspots study

Coverage

113
Hotspots (by SA2)

1.7M
People, ~7% of the population

771km²
Total study area, covering 792,245 dwellings

QLD 198 km² (210,820 dwellings)
NSW 188 km² (192,153 dwellings)
VIC 143 km² (157,895 dwellings)
SA 104 km² (74,885 dwellings)
WA 138 km² (93,492 dwellings)

56
Areas of interest (by geographical proximity)

QLD 15
NSW 13
VIC 13
SA 7
WA 8

44
Local government areas

QLD 9 (out of 80)
NSW 9 (out of 131)
VIC 10 (out of 82)
SA 8 (out of 73)
WA 8 (out of 139)

Results

	QLD	NSW	VIC	SA	WA
Roofs detected	3,227	5,514	1,961	377	2,233
Avg roof footprint	144m²	84m²	126m²	143m²	113m²
Density range (Average)	0.4–0.6% (1.5%)	0.7–5.9% (2.9%)	0.4–2.8% (1.2%)	0.2–1.6% (0.5%)	0.2–6.6% (2.4%)
Volume	7,249 t	7,225 t	3,854 t	841 t	3,936 t
Area (Football Fields)	444,688m² (~65)	463,176m² (~65)	247,086m² (~35)	53,911m² (~7.5)	252,329m² (~35)
AI model accuracy	98%	99%	99%	100%	96%

13,312
Asbestos cement roof count

23,105 t
Estimated waste volume

1,481,190m²
Estimated waste area

~207
Estimated waste in football fields

Preliminary observations on external asbestos cement cladding suggest that its prevalence is at least 2-fold higher than that of asbestos cement roofing in the residential setting, and that it generally occurs independent of asbestos cement roofing; this will be examined in further detail in subsequent research.

In 2020 the Latrobe Valley Asbestos Taskforce in Victoria developed a model to estimate the volume of ACMs remaining in residential properties across the broader Latrobe Valley region. The research estimated that 74% of homes in the region contain asbestos (3.1 million m² of ACM) and found that the most common place for ACMs to be located in homes built before 1990 is in the eaves and internal linings of wet areas.[22] This research also found that homes did not have to have either asbestos roofing or cladding for asbestos to be a key building material elsewhere.

[22] Estimating-the-volume-of-residential-asbestos-remaining-in-the-Latrobe-Valley-a-model.pdf (asbestostaskforce.net)

Key observations

Government owned assets

- Targets 2 and 3 together help governments understand the nature of their asbestos legacy and consequently target resources more effectively to manage asbestos exposure risks in a staged and proactive way.
- Reporting against these targets indicates that all governments are identifying and assessing the risks associated with ACMs in their assets, but that this process is mostly decentralised, with individual agencies and departments managing their own asbestos registers, risk assessments and removal programs.
- Governments are at different stages of maturity in relation to a systematic approach to asbestos removal – only a few have planned, prioritised removal schedules.

Commercial buildings

- A lack of data reported against Target 5 indicates that the extent of compliance with duties to maintain asbestos registers and management plans could be better captured as part of compliance and enforcement activity under Targets 4 and 6.

Residential environment

- Significant progress has been made towards meeting Target 9 with the completion of the asbestos cement roof hotspots study during the reporting period.

Next steps

- ASEA will research ways to improve consistency in asbestos risk assessments and centralise asbestos registers where governments and other businesses have multiple assets.
- The focus of Target 5 will be considered in the mid-term review of the Asbestos National Strategic Plan.
- The predictive model for the presence or absence of ACM in the home is to be delivered in 2022, representing a first ever national picture of asbestos in the Australian residential environment.

5. Asbestos waste

Priority 3 of the Asbestos National Strategic Plan aims to improve the framework for managing asbestos waste, including by improving the accessibility and availability of asbestos waste disposal facilities.

National waste data collection

Data is collected on behalf of the Australian Government by the Department of Agriculture, Water and Environment for national waste reports, including the annual report to meet international obligations under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

State and territory governments capture asbestos waste disposal data from their tracking systems. Data was provided by these governments from 2006–07 to 2020–21. In total, over this time period, approximately 12.5 million tonnes of asbestos containing waste was disposed of in Australia.

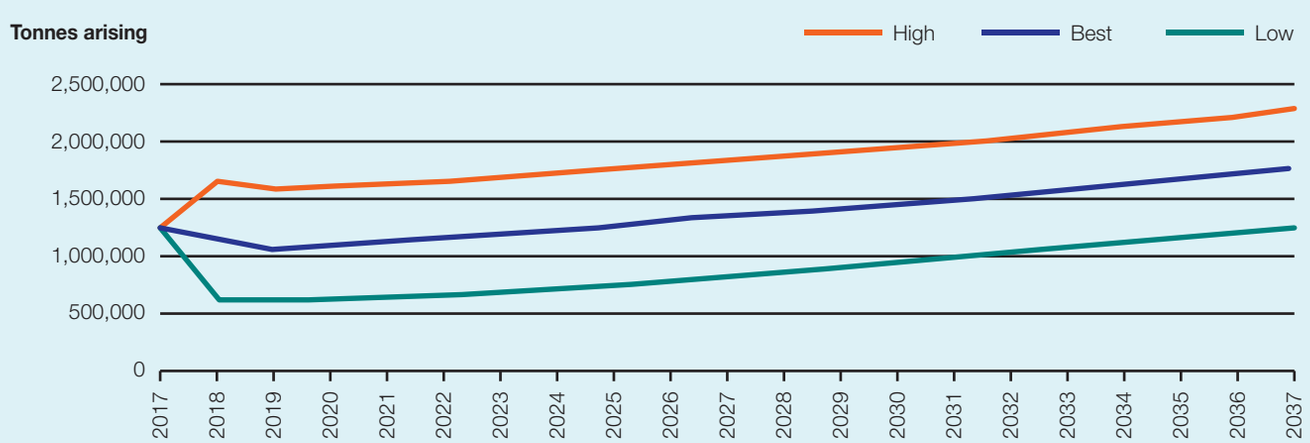
Waste volumes, including hazardous waste, have increased over the last decade. Australia's two largest hazardous waste streams are contaminated soils and asbestos – it is estimated about 21% of Australia's hazardous waste is asbestos.[23]

Asbestos waste in Australia has **increased nationally from approximately 315,000 tonnes in 2006–2007 to approximately 1.42 million tonnes in 2020–2021.** NSW reported the highest quantity (refer to Appendix A for a jurisdictional breakdown of asbestos waste volumes). Asbestos waste volumes are projected to increase to more than 2 million tonnes in the next 15 years (Figure 12).[24]

Most asbestos waste comes from renovation and urban development. Building and demolition waste can also be contaminated with asbestos. Contaminated soil and rubble can be included in asbestos waste totals. The fate of most waste is disposal in landfill.

Waste streams have been impacted by bushfire waste disposal, asbestos contaminated soil and the impact of COVID19 with increased household waste generation.

Figure 12: Best, high and low national projection estimates of asbestos waste (tonnes) to 2037



Source: 2019 Hazardous Waste Infrastructure Report

[23] Hazardous Waste in Australia 2021 – Commonwealth Department of Agriculture, Water and the Environment

[24] Assessment of hazardous waste infrastructure needs and capacities in Australia 2018 - DAWE

Asbestos stocks and flows

In 2021, ASEA updated its research on:

- Asbestos stocks (estimating asbestos volumes left in the built environment)
- Asbestos flows (estimating asbestos volumes moving to waste with future projections)

The national model provides best estimates on how much of Australia's hazardous asbestos legacy is remaining, and the rate at which it is reducing. This research aims to support governments in the proactive planning for safe, prioritised asbestos removal and waste management with projected quantities of ACMs reaching the end of their product life.

Of the 13 million tonnes of asbestos containing materials that were consumed in Australia, the estimates show that around half of these materials (6.4 million tonnes) remain in the built environment.

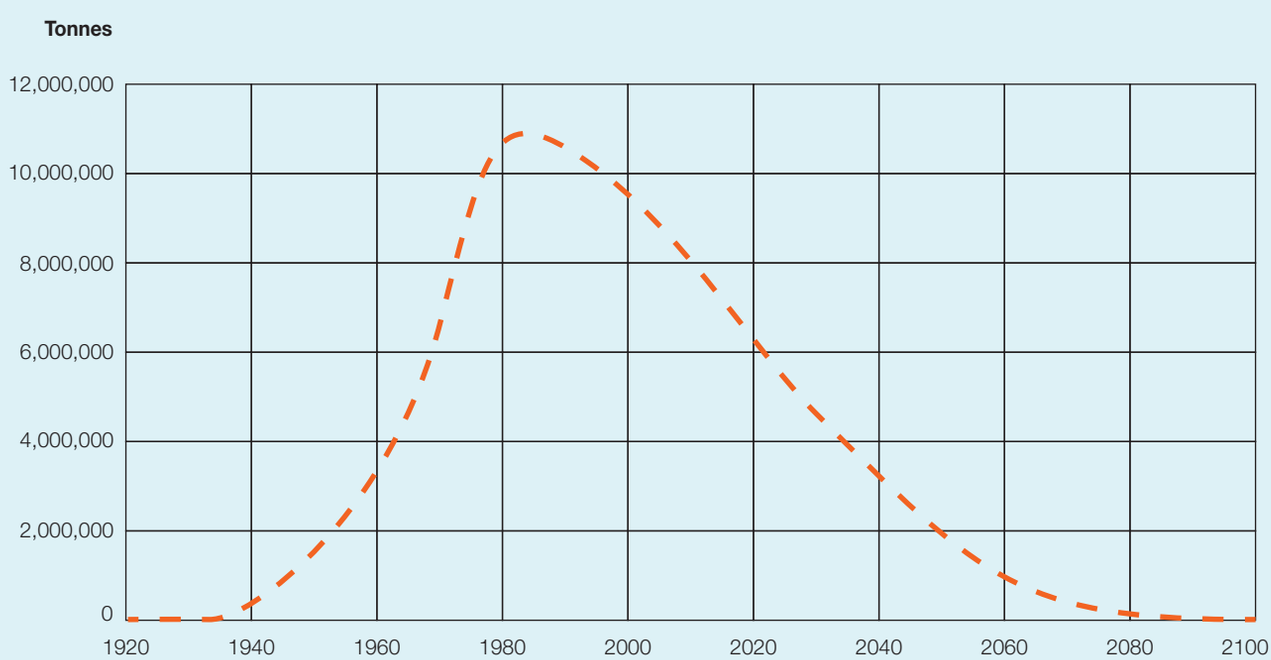
This includes:

- 3.4 million tonnes of asbestos cement pipes
- 1.7 million tonnes of asbestos cement sheeting (domestic)
- 1 million tonnes of asbestos cement sheeting (commercial).

Together, asbestos cement pipes and commercial and domestic cement sheeting make up around 95% of the remaining legacy asbestos in the built environment in Australia.

After peaking in 1980 at around 11 million tonnes, ACM stocks are predicted to decline at just above 10% per decade. Without significant intervention, ACM stocks will decline to around 1 million tonnes by 2060 (Figure 13).

Figure 13: Estimated stocks of asbestos containing materials



The estimated flows to waste in the model do not include soil and rubble contaminated with ACMs and may therefore differ to other waste reporting totals.

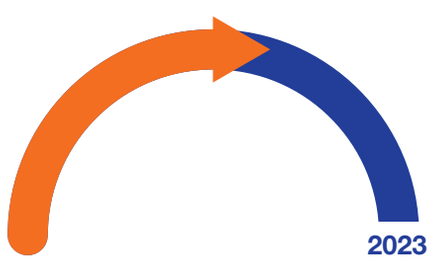
Many asbestos products are starting to reach end of life and have been in the built environment for between 40 to 80 years. Most ACMs reaching end of life would be taken to landfill, while some, for example asbestos cement water pipes, may be left in situ with regular monitoring of ACM condition.

ASEA used the model to estimate stocks and flows data at the jurisdictional level and developed fact sheets for each state and territory.

Easier and cheaper asbestos waste disposal

Target 7

Easier and cheaper disposal of asbestos waste



WHS and environment protection laws require asbestos waste to be disposed of at facilities licensed to receive this waste. There are different requirements and costs associated with asbestos waste transport and disposal, depending on whether it is classified as a domestic or commercial load. ACMs must be double wrapped, sealed and labelled for disposal and the licensed facilities often require prior notice or bookings to be made.

Illegal dumping

As outlined in Chapter 3 of this report, surveys on asbestos awareness and behaviour show that around one in three respondents reported disposing of asbestos in unsafe or illegal ways, for example in household bins, with cost and convenience being significant barriers. A reduction in illegal dumping could therefore provide a measure of the effectiveness of Target 7.

Based on limited data and several assumptions, research commissioned by ASEA in 2016 estimated that 6,300 tonnes of asbestos is illegally dumped across Australia each year with around $11.2 million per annum in clean-up costs.

Environmental health officers (mostly located in local councils) are the main contacts for reporting illegal dumping incidents and for co-ordinating clean-up of dumping sites.

Although some councils keep records of these incidents (e.g. NSW councils that are members of Regional Illegal Dumping (RID) squads), there is no coordinated or comprehensive collection of data on illegal dumping of asbestos nationally or within jurisdictions.

Dumping of asbestos waste and other hazardous waste is generally treated as part of illegal dumping of all waste, rather than a separate issue or data stream. This means that the scale of illegal dumping of asbestos across Australia and whether it is increasing or reducing cannot be fully assessed. Instead, for the purposes of Target 7, it is more useful to focus on the strategies and initiatives implemented by governments to address illegal dumping of asbestos waste and what is being done to make asbestos waste disposal easier and cheaper.

Strategies to identify illegal dumping

The NSW EPA RIDonline program recorded 411 reports of illegal dumping with asbestos material including mixed waste with asbestos and asbestos fibro sheeting. RIDonline is a voluntary system which is estimated to capture around 60% of illegal dumping incidents dealt with by councils and public land managers.

In Victoria, the illegal disposal of asbestos is also reported to the Environment Protection Authority as pollution reports which have specific coding to enable tracking. This has allowed EPA Victoria to conduct a mapping exercise and plot the known incidents of illegal asbestos dumping from pollution reports. EPA Victoria will use this data to complete hotspot descriptions of illegal waste disposal including asbestos during 2021–2022.

Making asbestos waste disposal easier

The risks of asbestos exposure will remain if asbestos waste is not safely disposed at facilities licensed to accept asbestos waste. Given predictions that asbestos waste quantities will continue to rise there is a need to ensure this waste can be disposed of conveniently.

In 2021 ASEA updated the national list of licensed asbestos waste facilities (landfills and transfer stations) and updated its web search tool for the 267 facilities (domestic and commercial) around Australia accepting asbestos waste.[25] Of these facilities:

- 96 % (257) accept domestic waste
- 90 % (241) accept commercial waste
- 79 % (211) accept both domestic and commercial waste

ASEA also updated jurisdictional maps for each jurisdiction showing licensed asbestos disposal facilities that are within convenient travel times for areas with populations greater than 1,000 people, with convenience defined as:

- 40 minutes in off-peak traffic for small domestic loads of non-friable ACMs, and
- 2 hours in off-peak traffic for large commercial loads of ACMs and friable asbestos

This research identified that a 40-minute travel time applies in most instances:

- 2.8% of the Australian population lives more than 40 minutes from a waste facility that accepts domestic asbestos waste
- 0.4% of the Australian population lives more than 2 hours from a waste facility that accepts commercial asbestos waste.
- The Northern Territory is most affected by longer travel times.

One of the priorities outlined in Asbestos in NSW: Setting the Direction 2021–2022 is to improve asbestos waste disposal, including by assessing asbestos waste infrastructure across NSW to identify market shortfalls and determine how to meet critical infrastructure needs.

Sustainability Victoria's Asbestos Disposal Management Plan aims to maintain or increase access to asbestos disposal options as some landfills will close over the next 10 years in Victoria. Asbestos disposal infrastructure needs beyond 10 years will be considered in future Victorian Recycling Infrastructure Plans (VRIP). The VRIP is a long-term state-wide plan that will ensure Victoria has a reliable and safe waste and recycling system to meet the needs of an expanding population.

[25] Search for disposal facilities | Asbestos Safety and Eradication Agency

Making asbestos waste disposal cheaper

Pricing for asbestos waste disposal can include both a gate and levy fee. As asbestos waste can't be recycled, most jurisdictions have removed the levy for domestic loads of separated and wrapped asbestos waste, however gate fees still apply.

Waste levy

In NSW, the 2020–2021 waste levy ranges from $147.10 per tonne (metropolitan rate) to $84.70 (regional rate) to zero in non-levy areas. The NSW Government announced its support to waive the waste levy for small loads of bonded asbestos from homeowners, to make asbestos disposal cheaper. The NSW EPA is currently designing a system to waive the waste levy for loads of separated, wrapped and bonded asbestos up to 500 kg.

In Victoria, the current levy for packaged asbestos and soil containing only asbestos contamination is $30.96 per tonne, which is significantly less than the 2021–22 Metropolitan Municipal and Industrial levy rate of $105.90 per tonne. Victoria's Asbestos Disposal Management Plan includes consideration of the cost of disposal in developing options for how the asbestos disposal system may be sustained in the longer term.

The Tasmanian government is planning to establish a legislated state-wide waste levy to replace the current voluntary regional waste levies. It allows for problem wastes (such as asbestos) to be exempt so that the levy doesn't deter proper disposal.[26]

All other jurisdictions have removed the levy for asbestos waste.

Gate fees

Gate fees within jurisdictions vary significantly and are set by the waste facilities (privately owned or council owned) to reflect the special handling requirements associated with asbestos compared to general waste.

The ACT is the only jurisdiction that provides free disposal of small domestic loads (less than 0.25 tonnes) as all landfills are owned by the ACT government.

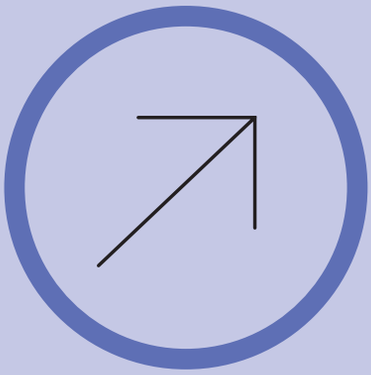
The Latrobe City Council in Victoria offers subsidised kits costing approximately $60 for removing small quantities of asbestos which includes disposal.

Landfill operators in NSW that accept asbestos can now apply to the NSW EPA for a licence variation to use general household waste as an alternative landfill cover to soil for asbestos waste which may help to reduce costs.

[26] Waste and Resource Recovery Bill | Department of Natural Resources and Environment Tasmania (nre.tas.gov.au)

Key observations

- Future flows to waste suggest infrastructure for asbestos disposal is required for many decades to come.
- While most jurisdictions have removed the waste levy for domestic loads of separated and wrapped asbestos waste and are implementing strategies to address illegal dumping, more focus is needed on what can be done to make asbestos waste disposal easier and cheaper, and effectively manage rising quantities of asbestos waste.



Next steps

- ASEA will conduct further research to identify:
  - improvements for Australia's asbestos waste management framework
  - strategies and initiatives councils could use to combat illegal dumping of asbestos.

6. Compliance and enforcement

Priority 2 of the Asbestos National Strategic Plan includes an action to ensure effective compliance and enforcement of relevant laws by regulatory agencies.

Targets 4 and 6 of the Asbestos National Strategic Plan recognise that an effective regulatory system consists of both:

- proactive activities to help duty holders understand their legal obligations and encourage voluntary compliance, for example by providing guidance, education, and conducting targeted regulator inspections and compliance campaigns
- reactive activities that penalise those who breach the laws, for example issuing infringement notices and conducting prosecutions.

This approach is known as ‘responsive regulation’ and is often reflected in a regulatory pyramid.

Regulators in the asbestos management system

Commonwealth, state and territory regulators enforce asbestos-related laws in relation to:

- Work health and safety
- Environment protection
- Public health
- Consumer rights
- Building safety
- Transport
- Border protection

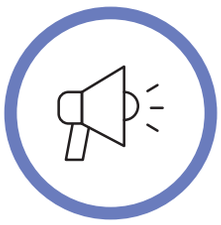
Local councils are generally authorised to enforce aspects of public health, environment protection and planning laws and manage asbestos in non-workplaces by educating residents, regulating land use and development, and managing waste disposal. Despite the impact of COVID-19, all Commonwealth, state and territory work health and safety regulators, state and territory environment protection authorities and the Australian Border Force reported carrying out asbestos-related compliance and enforcement activity during 2020–2021.

Asbestos compliance programs

Target 4

All regulators have in place and have implemented asbestos compliance programs

'Compliance programs' are proactive regulatory activities that are designed to help the regulated community understand their obligations under asbestos-related laws and voluntarily comply (bottom tier of the regulatory pyramid - see Figure 14). The activities include providing duty holders and the community with timely and accurate information, guidance, education and advice. Compliance programs also include targeted regulator inspections, audits and other verification activities.



Education and awareness campaigns

To encourage and assist compliance, regulators reported publishing guidance material, videos, safety alerts, newsletter articles, conducting webinars and awareness campaigns, including:

- EPA Victoria conducted an education campaign on its new environment protection laws including the general environmental duty, waste duties and the waste tracker system for reportable priority wastes. The waste duties, supported by the waste tracker system, prevent harm arising from the mismanagement of asbestos waste.
- WorkSafe Victoria conducted and evaluated its annual paid media campaign targeting tradespeople, noting a steady increase in engagement, including with the Asbestos in Victoria site.
- SafeWork NSW conducted a social media campaign about the dangers of pressure cleaning asbestos roofs, including translated versions for CALD communities which resulted in 25,953 video views. SafeWork NSW also launched a five-part video series for tradespersons on how to manage asbestos safely.
- The NSW EPA conducted one digital awareness campaign in 2020–21 warning landowners that 'free fill' could be contaminated with asbestos or lead. The Free fill – is it worth it? campaign was successful in increasing awareness and changing behaviours when sourcing soils. The research work with Meld Studios undertook a human centred approach to developing and evaluating effective messaging about the risks of receiving contaminated 'free fill' and won a Good Design Award for Social Impact.[27]
- The Australian Border Force (ABF) launched a media campaign to raise awareness of increased ABF attention on imported building products with asbestos.

Complaints and enquiries

Some regulators also tracked the number of asbestos-related complaints and enquiries:

- In its 2020–2021 Annual Activity Report SafeWork SA reported 784 receiving phone calls regarding asbestos issues and that asbestos was the second highest reason for proactive compliance visits (249 visits).[28]
- SafeWork NSW reported 1,934 requests for service relating to asbestos
- ACT WorkSafe reported receiving 77 enquiries and conducting 7 site visits in response to these enquiries.
- The ACCC reported receiving 33 complaints in 2020–21 from consumers about asbestos. Of these complaints, 8 related to reports of consumer products containing asbestos with the remaining primarily concerned with the presence of asbestos in residential property.

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[27] Human Centred Design Approach to Communicating the Risks of Illegally Dumped Asbestos – Good Design (good-design.org)

[28] SafeWork SA reflects on a year of achievement and innovation | SafeWork SA

Compliance Audits

SafeWork SA conducted an audit of asbestos license holders and their removal practices.[29] Around 30% of all licensed asbestos removalists in SA were audited. SafeWork SA also conducted a desktop audit of asbestos removal notifications to ensure licence holders complied with their licence conditions. Twenty improvement notices were issued as a result of this audit.

SafeWork NSW conducted 250 proactive audits of asbestos removal licence holders focussing on health monitoring and clearance certificate compliance. SafeWork NSW also conducted 12 audits of Registered Training Organisations (RTOs) delivering asbestos training.

Site Inspections

WHS regulators used asbestos removal notifications as an opportunity to conduct proactive site inspections of asbestos removal activities. Environment protection authorities reported conducting proactive inspections of both licensed and unlicensed waste facilities. Both of these regulators also conducted reactive inspections in response to asbestos complaints and reported incidents.

WorkSafe Victoria inspectorate undertook 1,892 asbestos related inspections with approximately half of these being proactive and half in relation to a complaint. These inspections resulted in 102 improvement notices and 37 prohibition notices being issued.

NT WorkSafe conducted 86 workplace visits in relation to asbestos removal. 14 improvement and 7 prohibition notices were issued for asbestos-related work. In addition one asbestos removalist licence was amended to require supervision by a competent third party.

WorkSafe Tasmania set a target to inspect all friable asbestos removal work and 15% of non-friable asbestos removals.

Comcare's TASC inspectorate[30] undertook 1,101 activities which included 913 inspections without prior notice. In 2021, Comcare established the Major Infrastructure Project Team which conducts proactive and reactive inspections into notification of Class A (Friable) or Class B (Non-friable) removal works in major projects.

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29 Compliance Program Audit Reports | SafeWork SA

30 Comcare's Telecommunications Asbestos Safety Compliance (TASC) program provides regulatory oversight of asbestos and other WHS risks associated with the NBN rollout.

Enforcement

Target 6

All regulators are investigating, prosecuting and penalising serious known breaches of asbestos-related laws including illegal waste disposal and importation

Target 6 captures regulatory activities undertaken to direct and enforce compliance where breaches of asbestos-related laws have been identified. Regulators reported investigating asbestos incidents and using a range of enforcement tools to direct compliance, such as improvement and prohibition notices under WHS laws and clean-up notices under environment protection laws.

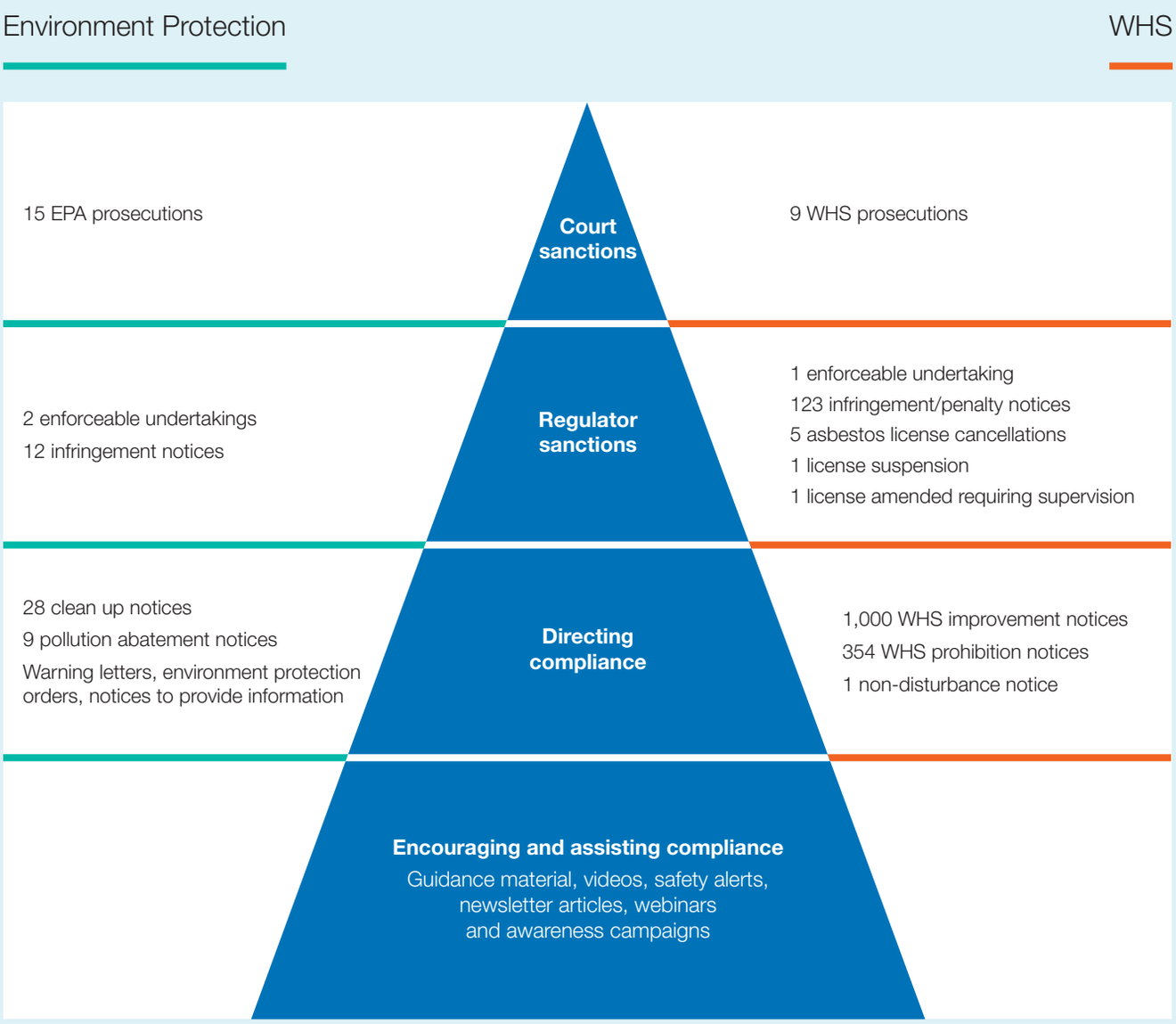
Target 6 also captures sanctions imposed by regulators for breaches of asbestos-related laws (e.g. enforceable undertakings, infringement/penalty notices and license suspensions or cancellations) and sanctions imposed by courts following successful prosecutions (the top tier of the regulatory pyramid – see Figure 14).

Some examples of successful prosecutions under WHS and environment protection laws during 2020–2021 are provided in Appendix B.

Enforceable undertaking

In October 2018, NT WorkSafe accepted an enforceable undertaking which was discharged in May 2021. It was alleged that Northern Transportables Pty Ltd, who were refurbishing three properties, allowed unlicensed workers to remove asbestos from two of the properties without training or the appropriate safety equipment, despite knowing the properties contained asbestos. The company committed to an expenditure of $225,721 which included funding asbestos awareness training for Northern Territory manufacturing, building and construction industry apprentices.

Figure 14: Regulatory pyramid showing reported enforcement activities by environment protection and WHS regulators for 2020–2021[31]



[31] Note: These numbers are approximate and not completely accurate due to some gaps in reported data. The EPA prosecution numbers include cases where asbestos may be one component of a general pollution offence.

Border protection

Before the border

Importing and exporting asbestos is prohibited under Customs (Prohibited Imports) Regulations 1956 and the Customs (Prohibited Exports) Regulations 1958, except in very limited circumstances. Permission to import asbestos may only be granted for:

- research, analysis or display
- importation of waste from an Australian External Territory for disposal in a state or territory.

Import permits allow samples of goods to be imported and tested at an accredited laboratory in Australia before shipments leave the country of origin. If asbestos is detected in a sample, the goods cannot be imported. This has prevented unintentional unlawful imports.

ASEA manages the asbestos import and export permissions under the Customs Regulations.

Permits issued	2019–2020	2020–2021
Import	**28** (of which 18 were issued to laboratories)	**29** (of which 22 were issued to laboratories)
Export	**5** (all 5 export permit holders were also granted import permits)	**5** (4 of the export permit holders were also granted import permits)

At the border

The Australian Border Force (ABF) is responsible for enforcing Australia's import prohibition for asbestos. When goods reach the Australian border, the ABF assesses them for risk, taking into account known information about asbestos use in countries of origin, at-risk manufacturing industries and prior border detections. If goods are suspected of containing asbestos the ABF will direct that the goods are tested by an accredited laboratory. If asbestos is detected the goods will be seized as a prohibited import and forfeited.

In 2020–2021 the ABF carried out **164 tests at the border and reported 34 detections** (31 chrysotile asbestos, 2 actinolite asbestos and 1 tremolite asbestos). The majority occurred in parts of older used vehicles originally manufactured with asbestos including 'classic cars', motorcycles and motor scooters. Machinery parts (gaskets) and cut stone slabs also featured.

During the same period the ABF issued 16 warning notices and 6 infringement notices with fines totalling $46,080.

If prohibited goods make it past the border

When prohibited asbestos products enter Australia the ABF, work health and safety regulators and the Australian Competition and Consumer Commission (ACCC) work together to trace imports and commence remediation. This may include publishing safety alerts,[32] negotiating and monitoring product recalls and initiating a Rapid Response Protocol (RRP).

The RRP enables the relevant agencies to quickly and cooperatively manage cases where imported goods with asbestos affect multiple jurisdictions.

Number of RRPs initiated	2019–2020 (4)	2020–2021 (4)
Imported goods	• Asbestos in the Brakes of Manual Hand Pallet Trucks • Fein Core Drills • Asbestos in Acetylene Cylinders • Asbestos in Shantui Forklifts	• Asbestos in imported Radio (Remote) Controlled Vehicles • Asbestos in Billiard Table Irons and Stands • Stone product slabs • Trojan-brand trailer electric park leg stand (also subject to a recall)

The ACCC published one recall for consumer goods containing asbestos during 2020–2021: Trojan Park Leg Trailer Electric Stand | Product Safety Australia (8 December 2020).

It is an offence to fail to notify a recall in accordance with the requirements of section 128 of the Australian Consumer Law. The ACCC has not been required to take action to date against an entity for failure to comply with this provision for any recalls of goods containing asbestos.

[32] National safety alerts are published on the ASEA website Illegal asbestos imports

Asbestos law and policy changes

VIC

EPA Victoria prepared for the implementation of a new general environmental duty under the *Environment Protection Act 2017* which came into effect on 1 July 2021. The general environmental duty is central to the new Act and requires all Victorians to reduce the risk of harm to the environment or human health through pollution or waste. The new laws strengthen the EPA's enforcement powers and include large increases to penalties for rogue operators.

In February 2021, Sustainability Victoria published its Asbestos Disposal Management Plan to ensure Victoria has the infrastructure and supporting systems to make asbestos disposal easier and safe. The plan proposes to develop an integrated network composed of existing licensed landfills and new asbestos transfer sites (for the short-term storage and consolidation of small quantities of packaged asbestos before disposal at landfill).

NSW

SafeWork NSW released the NSW Dust Strategy for the safe handling of hazardous dust including asbestos, silica and wood.

Amendments made to the NSW WHS Act authorise NSW Health to provide information to SafeWork NSW or the Resources Regulator allowing regulators to exercise their functions under the WHS Act. This includes informing SafeWork NSW of cases of occupational dust diseases, and deaths resulting from such diseases, as soon as practicable after being notified of them.

In June 2021, the NSW Government launched the Waste and Sustainable Materials Strategy to transition to a circular economy. The Strategy also commits to:

- funding the NSW Asbestos Coordination Committee – providing $5 million for 5 years
- targeting illegal dumping including funding Regional Illegal Dumping (RID) Squads, RIDonline and other initiatives – providing $16 million over 5 years
- introducing new regulatory measures to combat illegal dumping
- leading the establishment of a nationally consistent tracking and data system for hazardous waste movement (including asbestos) which will assist in identifying critical hazardous waste infrastructure needs
- investigating GPS tracking of asbestos waste transportation.

An agreement was reached for the NSW EPA to have direct access to the SafeWork NSW asbestos removal notifications database. This connects important government data to support investigations.

QLD

The Queensland government announced that from 1 May 2021, low density asbestos fibre board is to be treated as friable ACM, meaning its removal can only be undertaken by a Class A asbestos removalist.

SA

Amended WHS Regulations took effect in South Australia from 1 January 2021 to permanently implement the requirement for air monitoring during Class A and Class B asbestos removal work.

ACT

From 1 February 2021, ACT licence holders, including asbestos assessors and removalists, had their licence details published on WorkSafe ACT's public register. Details of infringement notices are also published and remain on the register for two years from the date of the offence, or five years, if the licence holder receives more than two infringement notices within 24 months.

The ACT Government launched a new voluntary BuyBack Program to manage any further undiscovered loose-fill asbestos insulation in ACT properties and provides homeowners with support through the Pathways to Eradication Package.

The ACT Government and Commonwealth Government committed to contribute $16 million ($8 million each) to establish a fund to support people who suffer from an asbestos-related disease as a result of exposure to loose-fill asbestos from living in a "Mr Fluffy" property. The fund will be administered by the ACT Government.

Key observations

- Reporting from regulators on compliance and enforcement activities in relation to asbestos indicates that Target 4 and Target 6 are largely being met, despite the impact of COVID-19.
- Some safety regulators were able to provide more comprehensive information on their activities. SafeWork SA's annual Asbestos Activity Snapshot and SafeWork NSW's Asbestos and Demolition Quarterly Dashboard are good models for capturing compliance and enforcement data including information such as the most common complaints and top 5 reasons for issuing notices. This is useful for identifying trends and areas that need a compliance focus or additional guidance.
- The notification of licenced asbestos removal work under WHS laws helps WHS regulators conduct proactive compliance audits, which is important given the high risk nature of this work.
- Outcomes of compliance campaigns and enforcement activities are not always well publicised in the wider community. Doing so helps raise awareness of the legal requirements and the consequences of breaching asbestos-related laws.
- Ultimately improvements in awareness levels (measured in Target 1); effective asbestos compliance programs (Target 4) and initiatives that make it easy to comply with asbestos-related laws (for example Target 7) should lead to greater compliance and fewer sanctions.

Next steps

- A proactive compliance campaign focussing on asbestos register requirements could support gathering data for Target 5 (see Chapter 4 of this report).
- ASEA will work with regulators to improve consistency in reporting against Targets 4 and 6 and publicise outcomes of asbestos-related compliance and enforcement activities, including through stakeholder networks.

7. International collaboration and leadership

The Australian Government is responsible for the implementation of **Priority 4** of the Asbestos National Strategic Plan, having committed to international collaboration and leadership to help secure a worldwide ban on the production and trade of ACMs.

A number of Australian Government departments and agencies are contributing to this work by:

- continuing to present the Australian Government's position on banning asbestos mining, manufacture and use to relevant international bodies
- sharing best practice approaches in asbestos awareness, management and removal at international events
- identifying and managing ACM importation risks through proactive international engagement, and
- educating the import supply chain to prevent ACMs entering Australia.

International asbestos-related work

The Department of Foreign Affairs and Trade (DFAT) *Policy on Environmental and Social Safeguard Policy on Managing Asbestos Risk* applies to all Australian Official Development Assistance funded activities. The Policy reinforces DFAT's ban on the use of asbestos and provides guidance on the management of asbestos risks in Development program investments and activities.

DFAT requires new investments, including those co-financed with the Multilateral Development Banks, to be screened for environmental and social risks and impacts, including asbestos risks.

In May 2021, the Asian Infrastructure Investment Bank added ACM to the prohibited list of materials for bank financed projects. The Asian Development Bank's updated Safeguard Policy Statement will include a ban on ACM.

Top asbestos exporting countries

- Russia
- Kazakhstan
- Brazil
- China

Top asbestos importing countries

- India
- Indonesia
- Uzbekistan
- China
- Sri Lanka

Source: Asbestos (HS: 2524) Product Trade, Exporters and Importers | OEC – The Observatory of Economic Complexity

Australia provides development assistance to improve environmental outcomes in the Pacific, including through our engagement with and financial support to the Secretariat of the Pacific Regional Environment Programme (SPREP).

SPREP is the regional organisation established by Pacific governments and administrations charged with protecting and managing the environment and natural resources of the Pacific. In September 2017, 21 member states of SPREP endorsed a proposal to ban or restrict the importation, re-use and re-sale of products and waste containing asbestos in Pacific island countries.

Australia currently provides $4.3 million per year in core funding to SPREP.

Other international work includes guidance material that ASEA has developed for Columbia to support its ban on asbestos which came into effect in 2021.

ASEA also contributed to the Asbestos Diseases Research Institute eToolkit 2021 for the elimination of asbestos-related diseases in developing countries.

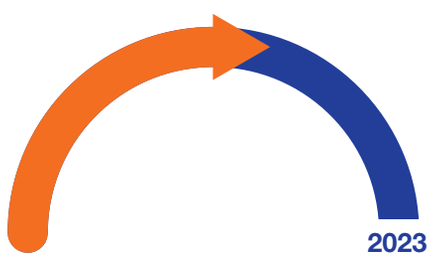
The Rotterdam Convention

The Department of Agriculture, Water and Environment (DAWE) administers Australia's obligations under the Rotterdam Convention, which covers the international trade of certain hazardous chemicals. ASEA and DAWE are continuing to promote reform of the Rotterdam Convention to include chrysotile asbestos in Annex III of the convention so that countries can make regulatory decisions about whether to ban asbestos imports. Although the listing of chrysotile asbestos on the Rotterdam Convention is not a ban, it is an important step towards a ban in many developing nations, particularly in South-East Asia.

Asbestos bans in South-East Asia and the Pacific

Target 8

Bans of asbestos production and use in South-East Asia and the Pacific have been influenced and progressed



The South-East Asian region continues to have large levels of chrysotile asbestos consumption, often very poor occupational health and safety standards, including unsafe asbestos management and waste disposal practices.

ASEA has a longstanding partnership with the non-government organisation Australian People for Health, Education and Development Abroad Incorporated (known as Union Aid Abroad-APHEDA) who have provided on the ground support and assistance in South-East Asia and the Pacific. Union Aid Abroad – APHEDA coordinates asbestos ban groups working in the Mekong region, is active within the Asia Ban Network (ABAN) and collaborates with other international organisations such as the World Health Organisation and the International Labour Organisation.

The primary focus of this work is to promote the *Asbestos – Not here, not anywhere* campaign which aims to:

- raise awareness about asbestos exposure risks among high-risk groups and policy makers
- promote the elimination of asbestos related diseases
- phase out asbestos imports, and
- implement national bans on the production and use of asbestos-containing materials.

The goal is to reduce both supply and demand of asbestos products.

Of the 11 countries in South-East Asia, only one country – Brunei – has banned the use of all types of asbestos. Singapore banned the use of all types of raw asbestos. No other South-East Asian country has implemented a national ban, although there has been significant progress in the following countries:

- Vietnam has committed to completely phase out asbestos roof sheet manufacture by 2023
- Indonesia has initiated regional and local asbestos bans
- Lao PDR's National Action Plan to eliminate asbestos-related disease and ban chrysotile asbestos was approved by the Minister of Health but not yet by the whole of government
- Cambodia has updated its National Asbestos Profile (which was launched in 2019) and is drafting a National Action Plan to eliminate asbestos-related diseases in Cambodia.

Further information on the activities to progress asbestos bans in these countries is provided in Appendix C.

With the COVID-19 pandemic worsening in some countries in South-East Asia, planned activities moved online and actions over the past two years have mainly focused on:

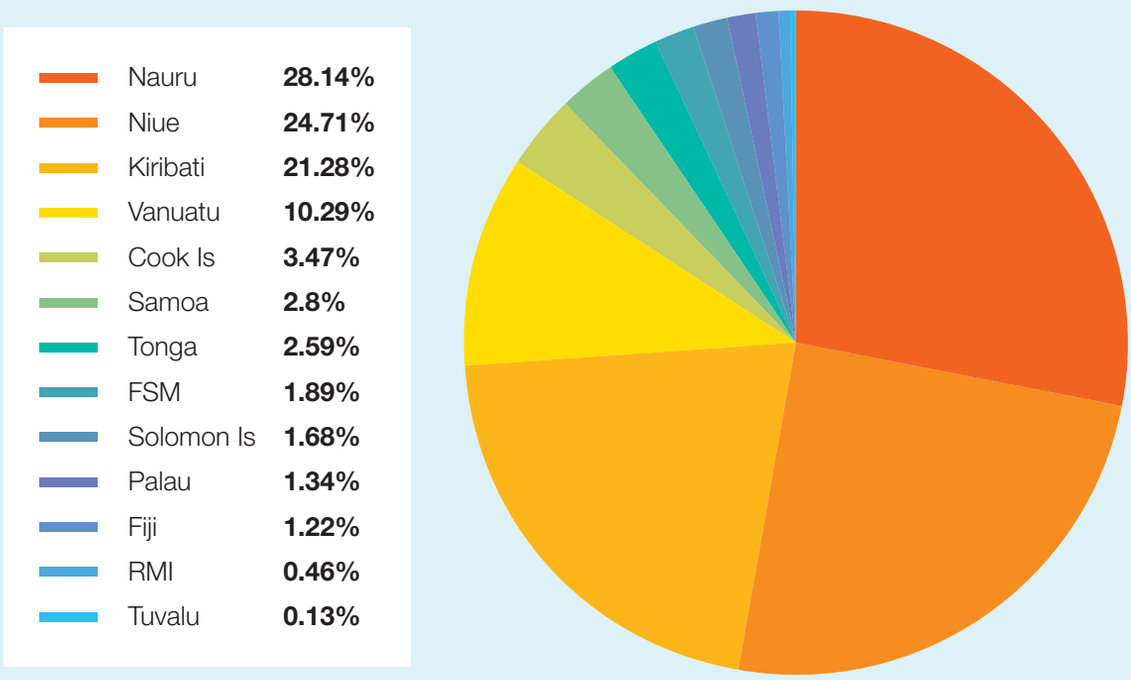
- defending progress already made in Vietnam and Laos
- supporting progress in Cambodia
- shifting emphasis in Indonesia towards further national regulation restricting asbestos use.

The state of asbestos in the Pacific

The Pacific region has a serious, but unevenly distributed asbestos problem. Building products that contain asbestos continue to be imported into the region.

Dealing with in situ asbestos and waste falls under the Pacific Hazardous Waste Management (PacWaste) Plus project which is funded by the European Union. In 2015 the PacWaste project carried out a regional survey of 25 different islands across 13 countries (Figure 15).[33] The survey identified an estimated 187,891m^2 of non-residential ACM, of which 78% was classified as either high or moderate risk.

Figure 15: Four of the 13 countries surveyed account for 83% of confirmed non-residential asbestos



[33] Survey of the regional distribution and status of asbestos-contaminated construction material and best practice options for its management in Pacific Island countries, 2015 report prepared for SPREP by Contract Environmental Ltd and Geoscience Consulting.

A visual assessment of residential dwellings was undertaken at every location visited. While the residential survey results can only report the suspected existence of asbestos materials, the results were similar to the non-residential survey in that there were significant variances between locations.

The estimates of suspected residential asbestos ranged from nil or practically nil (Fiji, Federated States of Micronesia, Palau, Republic of the Marshall Islands, Samoa) through to almost half of residential dwellings (Funafuti in Tuvalu).

Since 2019, ASEA has engaged with the PacWaste Plus project team to promote bans on importation and use of asbestos in the Pacific region and implementation of guidance and strategies to deal with legacy ACM still in most countries.

The challenges of progressing asbestos bans in South-East Asia and the Pacific

The single biggest challenge to progressing asbestos bans is the significant efforts by the asbestos industry and major asbestos exporting countries to block any regulation of their product in the region. These strategies include:

- influencing governments not to act on global evidence regarding the hazardous nature of their product by promoting their own ‘chrysotile safe use’ campaign with misinformation on the toxicity of chrysotile asbestos
- surveillance and intimidation of ban networks
- direct incentives to policy makers and threats to trade if countries pursue bans of asbestos.

Other key challenges include:

- long lead time between exposure and disease onset
- lack of capacity in many countries to diagnose asbestos-related diseases
- low consumer and policy maker awareness of the exposure risks to humans and the real health, economic and environmental costs of continued use
- lack of asbestos registers in workplaces
- lack of product labelling regulation on ACMs in local languages
- lack of awareness of safer alternative materials
- lack of resources to counter the misinformation from the asbestos industry.

Key observations

- While national level asbestos prohibitions have yet to be implemented in the target countries, regulatory and policy progress has been achieved, despite the strong influence of the asbestos industry lobby and the pandemic slowing the momentum of the *Asbestos – Not here, not anywhere* campaign during 2020–2021.
- National bans on asbestos will be more likely if local ban networks have the confidence, support and resources to counter the industry lobby and promote an asbestos free future to decision makers.
- Awareness of the dangers of asbestos among vulnerable communities and workers is improving due to translated information and communication materials but needs broader reach. Product labelling and warnings in local languages is also needed.
- Australian expert training in identifying ACM and safe removal has increased capability to reduce asbestos exposure risks in targeted communities.
- Governments in the region are worried about the economic impacts of national asbestos bans and the complexity of drafting and implementing effective laws across numerous Ministries.
- The long latency of asbestos-related diseases and the inability to diagnose cases in many countries are masking the disease burden already present.

Next steps

- Misinformation by the asbestos industry and export countries needs to be refuted by increasing engagement with policy makers on the dangers of asbestos, the levels exposure in the community, its cost to the health systems and cost-effective alternatives to ACM. Asbestos disease victims locally can also be a powerful voice for policy makers.
- ASEA will strengthen its direct connections with governments in the region and promote the use of its website as a source of trusted information on asbestos.
- Support for cost benefit analysis by respected research bodies to provide evidence of real costs of continued use at a country level, as well as legislative drafting expertise for interested countries will be considered.
- Union Aid Abroad-APHEDA, with the support of ASEA, will continue:
  - promoting the *Asbestos – Not here, not anywhere* campaign by engaging with governments, employers, trade unions, communities, specialists, victims and consumers to raise awareness about asbestos exposure risks, alternative safer materials, safe removal and disposal, and benefits of banning imports and use.
  - focussing on reducing supply (imports) and demand of asbestos products
  - strengthening regional coordination among ban networks
  - improving asbestos-related disease surveillance and diagnosis capability.

Appendix A: Asbestos waste volumes

The table below shows volumes of reported asbestos waste from 2006–2007 to 2020–2021 (tonnes per annum). (source: Blue Environment for ASEA 2021)

	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Australia
2006–07	372	207,860	1,593	49,847	11,757	1,588	42,099	225	315,340
2007–08	24	211,184	1,639	44,772	17,602	1,009	35,768	5,947	317,944
2008–09	18,661	222,299	1,684	48,577	7,798	2,023	32,882	10,836	344,760
2009–10	170	227,936	1,712	67,598	5,916	332	50,543	12,286	366,492
2010–11	1,126	194,700	1,724	87,834	21,085	171	42,515	19,390	368,544
2011–12	4,757	207,300	1,758	101,048	22,828	14,917	61,050	12,100	425,757
2012–13	5,954	531,000	1,801	113,345	20,129	14,931	65,656	26,045	778,861
2013–14	6,680	420,000	1,810	120,728	15,991	14,972	74,046	29,237	683,464
2014–15	5,856	306,465	2,000	150,302	14,517	15,015	80,078	38,492	612,725
2015–16	68,405	508,156	5,982	145,102	9,224	15,085	101,636	38,724	892,314
2016–17	208,474	682,444	5,913	154,608	11,770	15,228	118,626	39,000	1,236,063
2017–18	94,293	1,158,050	5,225	149,873	17,302	5,059	154,520	31,886	1,616,207
2018–19	48,176	1,318,779	7,118	152,552	42,987	3,259	102,842	24,772	1,700,485
2019–20	17,741	899,444	17,435	154,918	35,694	4,094	178,670	24,165	1,332,162
2020–21	19,559	841,900	38,483	326,276	36,085	3,844	136,925	17,657	1,420,730

Appendix B: Prosecutions

Work Health and Safety

Queensland: In October 2020, a company that had used an excavator to demolish an asbestos-containing house without taking any steps to prevent the inadvertent dispersal of asbestos fibres, was fined $8,000 after pleading guilty to six breaches of the state's WHS Regulation.

Two directors of ABC Demolition & Asbestos Removal Pty Ltd who carried out the demolition work were also charged over the incident. They were fined $4,000 each. No convictions were recorded against the three defendants.

Queensland: In November 2020, a demolition and asbestos removal company was convicted in the Southport Magistrates Court of two offences under the *Work Health and Safety Act 2011*: a non-disturbance notice breach and directing or allowing a worker to remove over 10m^2 of ACM without a licence. The company was fined $7,000.

Queensland: In November 2020, a company pleaded guilty for failing to comply with its primary health and safety duty to ensure, so far as reasonably practicable, the health and safety of its workers. The company had failed to remove asbestos prior to demolition work. It was fined $6,000 with no conviction recorded.

Victoria: In December 2020 a demolition company was convicted in the Broadmeadows Magistrates Court for WHS breaches. A neighbour spotted workers knocking down a building containing asbestos without the proper controls in place. The company was not a licensed asbestos removalist. A worker said the company's director had told them to go ahead with the work despite the presence of asbestos to get the job done quicker. A $20,000 fine was imposed and costs of $4,449 ordered.

Queensland: In March 2021 a house painter was penalised in the Brisbane Magistrates Court for 'disgraceful' failure to protect his workers and the public from asbestos fibres. He pleaded guilty to three WHS charges relating to directing or allowing workers to use high-pressure water spray on an asbestos cement roof in 2019. He failed to comply with an improvement notice to make the site and surrounding neighbouring properties safe and ensure all asbestos was contained, labelled and disposed of. This left the Queensland government with a $48,291 cost to clean up. The painter was fined $3,000 plus $1,000 in costs. He was also fined $6,500 for licence breaches. No conviction was recorded.

Environment protection

NSW: In July 2020, the Narrabri Local Court convicted the Narrabri Shire Council of two offences:

- failing to notify of a pollution incident that caused or threatened material harm to the environment and human health, and
- failing to implement a pollution incidence response managment plan.

During 2018, Narrabri Shire Council caused 4,300m^3 of stockpiled concrete to be crushed and used for road construction. The Council's Manager of Environmental Services was informed on 1 November 2018 that the crushed contained asbestos which threatened harm to the environment and human health.

However, the Council did not notify the EPA and activate its Pollution Incident Response Management Plan until 13 November 2018 in breach of its duties under the *Protection of the Environment Operations Act 1997*. The Narrabri Shire Council was ordered to:

- pay a $35,000 fine and the EPA's investigation and legal costs, and
- publicise details of the offences in local newspapers.

South Australia: In August 2020, GP and Sons were convicted in the Environment, Resources and Development Court for two counts of operating a waste depot without a licence. The first, at Wingfield during 2017, involved storing 7.2 tonnes of asbestos waste and the second, at Largs Bay in 2018, involved storing 10.4 tonnes of asbestos waste. The company was fined $49,000.

NSW: In November 2020, the Land and Environment Court convicted Aussie Earthmovers of two offences of knowingly providing false or misleading information about disposal of approximately 1,400 tonnes of asbestos-contaminated soil from a building site in Darlington, central Sydney. This involved providing fraudulent waste disposal dockets and a falsified 'Ticket List Report' to a construction company as proof that asbestos contaminated soil had been lawfully disposed of. After receiving the fake documents, the construction company then paid Aussie Earthmovers nearly a quarter of a million dollars for the removal of waste. Of 134 truckloads of the waste removed, only one truckload was found to have been lawfully disposed of. The company was fined $450,000.

In February 2021, Paul Mouawad, who was employed by Aussie Earthmovers, was convicted of two charges of knowingly providing false or misleading information about waste. Mr Mouawad was sentenced to 12 months imprisonment to be served in the community via an intensive correction order. He was also ordered to perform 250 hours of community service, to pay EPA's legal costs of $60,000 and to publicised details of the offences, including in The Daily Telegraph.

Victoria: In March 2021, Hunt Environmental Pty Ltd and its director were each convicted and fined $10,000, with the company also ordered to pay $550 in costs, for illegally dumping nearly a tonne of asbestos, along with other demolition waste.

NSW: In May 2021, the Windsor Local Court convicted Mr Michael Anthony Laird of two offences of polluting land. He had provided over 1,300 tonnes of fill material to two landowners in 2017 which was deposited, spread and compacted at two properties. The fill material was subsequently sampled and classified as asbestos waste. The clean-up cost the landowners over $280,000. Mr Laird was ordered to pay:

- $28,000 in fines
- $173,793 to the properties' owners in compensation for clean-up costs
- the EPA's investigation and legal costs.

Appendix C: Progress on implementing asbestos bans in South-East Asia

Progress on implementing asbestos bans in Vietnam, Cambodia, Lao PDR and Indonesia are outlined in the table below. These developments have been achieved with the support of ASEA and Union Aid Abroad-APHEDA collaborating closely with ban networks, governments, unions, employers and UN agencies in the region.

Vietnam

Status:

Vietnam has been in the top seven asbestos fibre import countries for much of the last decade.

In 2018, the Vietnamese Prime Minister announced a plan to completely phase out asbestos roof sheet manufacture by 2023. This has forced the asbestos roof sheet industry to shrink dramatically (more than 50%) as consumers move to alternative roofing materials.

The asbestos industry lobby continues to fight against any action banning asbestos products. This led to a Decree issued in February 2021 which allows continued use of chrysotile asbestos but emphasizes a transition to alternatives and limits investment in the construction or expansion of asbestos roof sheet manufacturing plants.

Activities:

- Update National Asbestos Profile.
- Capacity building in ethnic minority regions to reduce the acceptance and use of ACMs and promote use of alternative products.
- Facilitation of accredited training in safe removal ofACMs provided in Melbourne – February 2020.
- Translation of Chrysotile Asbestos factsheet and other materials into Vietnamese language for local distribution.

Cambodia

Status:

Cambodia has the lowest level of imports of asbestos fibre of the four countries (under 500 tonnes annually) but considerable import of ACM from Thailand, China and Vietnam for construction materials.

The first National Asbestos Profile and government paper on asbestos for the country was launched in June 2019. The campaign in Cambodia continues to build awareness in the community and work with government representatives on a national response.

Significant progress in the last year has been made in updating the National Asbestos Profile and drafting the first National Action Plan to eliminate asbestos-related diseases in Cambodia. The initiative will be co-funded by the ILO, Union Aid Abroad-APHEDA with support from ASEA.

Since 2019 Cambodia has been able to carry out laboratory testing for asbestos in materials inside the country for the first time. Training for 6 technicians was provided with ASEA support.

Activities:

- Provision of laboratory quality testing facilities for Ministry of Commerce to test for ACMs.
- Updated National Asbestos Profile for Cambodia launched.
- Capacity building to reduce the acceptance and use of ACMs and promote use of alternative products.
- Facilitation of accredited training in safe removal of ACMs provided in Melbourne – February 2020.
- Translation of Chrysotile Asbestos factsheet and other materials into Khmer language for local distribution.
- Technical support for the National Asbestos Profile Working Group.

Lao PDR

Status:

This small country was the highest user of asbestos per capita in the world according to 2013 import data.

Good progress was made in 2018–19 to ban asbestos but this stalled in 2020 due to the impact of COVID-19 and increased efforts by the asbestos industry lobby to stop the ban from being implemented.

The number of asbestos roof sheet factories reduced from 16 in 2013 to nine in 2019 indicating lower asbestos consumption in Laos during this period.

The Lao PRD Ministry of Health, supported by Union Aid Abroad – APHEDA and the National Action Plan to eliminate asbestos-related diseases has seen some progress with the first meeting of the National Committee in February 2021, chaired by the Minister of Health and including presentations from ASEA, APHEDA and Asbestos Disease Research Institute from Australia.

Activities:

- Support development and implementation of the National Action Plan on Elimination of Asbestos-Related Diseases.
- Facilitation of accredited training in safe removal of ACMs provided in Melbourne – February 2020.
- Participation in first meeting of Lao PDR National Committee chaired by Minister for Health – February 2021.
- Translation of Chrysotile Asbestos factsheet and other materials into Lao language for local distribution.
- Increased medical surveillance of asbestos-related diseases with recognition for sufferers.
- Asbestos hazard awareness for journalists, workers and students.

Indonesia

Status:

In recent years Indonesia has been the second biggest importer of asbestos fibre globally. The focus of campaign work in Indonesia has been on regulating asbestos use at regional levels and educating workers in asbestos product factories.

The campaign also focused on supporting people with asbestos-related diseases in winning recognition and compensation, building links with universities and health professionals, unions and civil society organisations.

The campaign had success in 2019 with bans on asbestos use in all future private and commercial buildings in Bandung City West Java, bans in Central Sulawesi on ACM use in post disaster housing and emergency housing.

Moving forward the focus will be on national regulation and consumer laws to improve identification and labelling of ACM.

Activities:

- Ban in Bandung City Assembly area of asbestos use in all future private constructions.
- National regulations introduced prohibiting asbestos materials in temporary housing after disasters.
- New laws in response to COVID-19 have changed some environmental and building regulations.
- Facilitation of accredited training in safe removal of ACMs provided in Melbourne – February 2020.
- Translation of Chrysotile Asbestos factsheet and other materials into Bahasa Indonesian language for local distribution.