

## Australian exports of waste and recovered materials in 2021-22

17 February 2023, Yong Lin, Piya Nyunt and Joe Pickin

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Blue Environment is commissioned by the Department of Climate Change, Energy, the Environment and Water to analyse and report data on monthly and annual exports of waste and recovered materials<sup>1</sup> and detail the results in monthly data workbooks and quarterly and annual reports. This report summarises annual exports data of the 2021-22 financial year and draws comparisons with the previous financial year.

The original exports data is provided by the Australian Bureau of Statistics (ABS), and comprises monthly data and updates to previously reported data<sup>2</sup>. The ABS data is transformed to account for issues such as trade codes covering a mixture of wastes and non-wastes, and to make them consistent with the [Australian Standard for Waste and Resource Recovery Data and Reporting](#). On a tonnage basis, nearly all these exports are materials recovered from waste streams for recycling<sup>3</sup> or energy, but a small portion is hazardous waste sent for treatment.

### Summary

In 2021-22, Australia exported about 4.41 Mt (megatonnes, or millions of tonnes) of waste and recovered materials with a reported value of \$4.36 billion<sup>4</sup>. This represents an increase of 3% in tonnage and 31% in value compared to the previous financial year. The exports included 3.96 Mt (90%) within the scope of national waste reporting ('core waste plus ash').

From July 2021, Australian regulations required exports of scrap plastics to be sorted into single resin or polymer types. Exports of scrap plastics declined 13% in 2021-22 as mixed plastics were replaced by single-polymer products. About 1.2 Mt of plastics and paper and cardboard were exported in 2021-22 under codes that could be affected by Australia's continued introduction of regulation of waste exports. This is about 27% of the total exports of waste and recovered materials.

### Annual trends in exports of waste and recovered materials, in aggregate

Figure 1 shows the tonnage of exports of waste and recovered materials from 2006-07 to 2021-22. Across all waste and recovered materials, 4.41 Mt were exported in 2021-22, slightly more than the previous year. Annual quantities have remained between 4.0 and 4.5 Mt for the past seven years.

The two major export streams were metals and paper and cardboard. Scrap metal exports accounted for 48% to 60% in all years. Annual tonnages have been relatively stable since 2016-17, and were 2.53 Mt in 2021-22, representing 57% of the total. Scrap paper and cardboard tonnages have declined since reaching 1.53 Mt in 2015-16. In 2021-22, 1.07 Mt were exported, or 24% of the total.

Figure 2 shows the reported dollar value of exports from 2006-07 to 2021-22, adjusted to dollar values in 2021-22. The total value has increased significantly from 2020-21 to 2021-22, by 31% to \$4.4b. Over three-quarters of this large rise is attributable to metals but there were increases in value in all streams. Scrap metals represented 72% of the 2021-22 total value, and paper and cardboard represented only 7% despite being 24% of the tonnage. Hazardous materials accounted for 9% while only 1% of the tonnage.

<sup>1</sup> The export codes mapped to waste and recovered materials in 2021-22 differ slightly from those in 2020-21. Details are given in the accompanying workbook (under 'Ref lists'). The historical data presented here has been updated.

<sup>2</sup> It cannot be guaranteed that exporters or agents reported the correct codes or values, so the data should be used with caution. Data may be revised for up to six months after initial publication as customs declarations are amended by individual traders, so there may be discrepancies between this report and its precedents. The data presented is gross weight, including packaging.

<sup>3</sup> Some of these recovered materials contain a proportion of contamination (or 'off-spec' content) that may need to be extracted before the material can be used.

<sup>4</sup> Dollar values refer to Australian dollars. Historical values are inflated based on the annualised consumer price index.

Figure 1 Exports of waste from Australia by financial year and material, 2006-07 to 2021-22 (Mt)

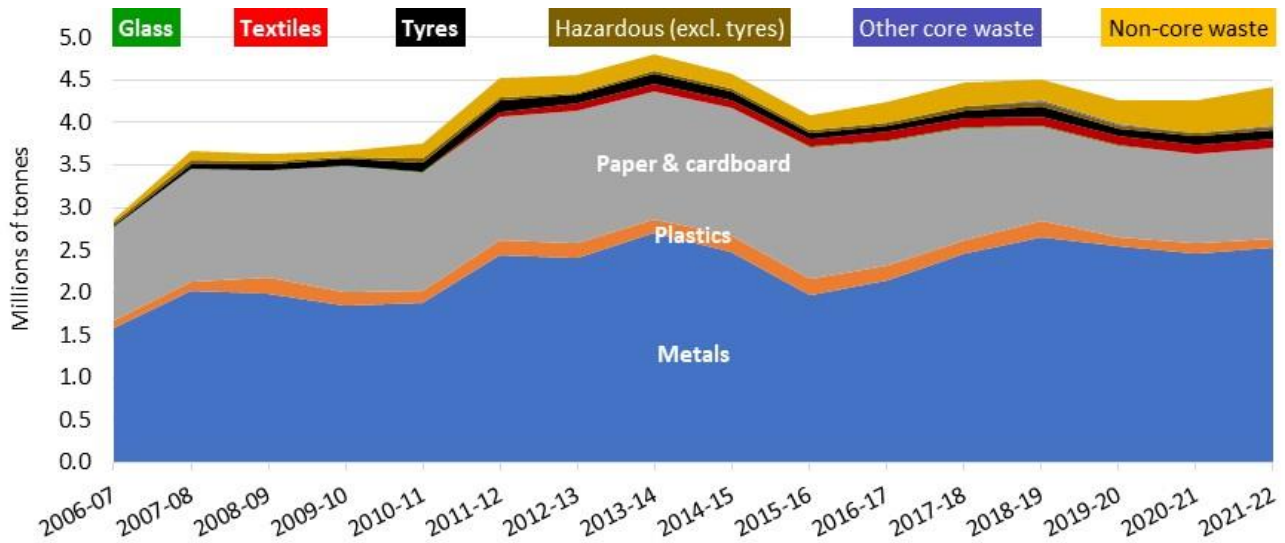
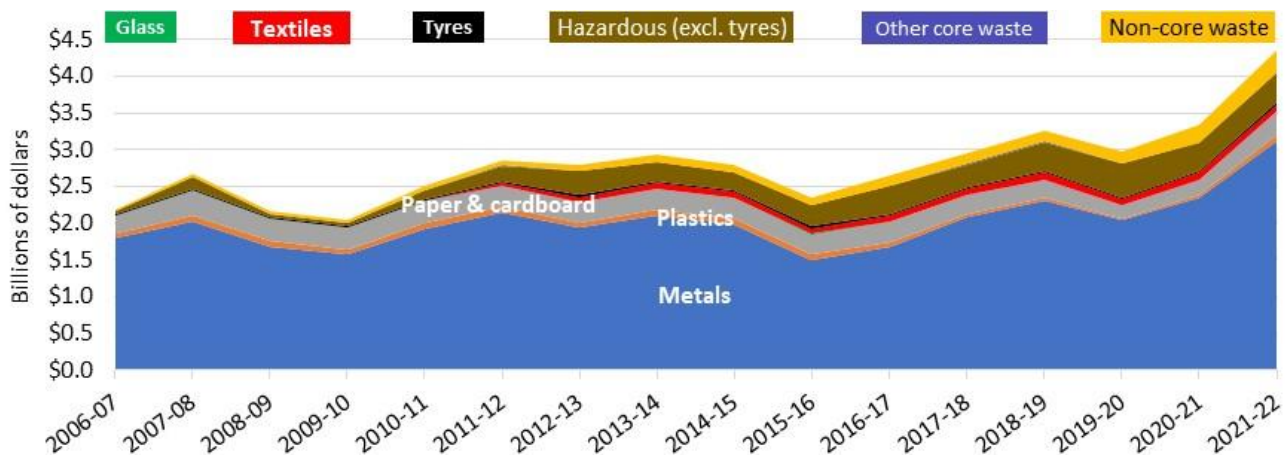


Figure 2 Value of exports of waste from Australia by financial year and material (2021-22 \$ billions)



### Annual trends in exports of recovered materials to be subject to export regulations

Australia has determined to regulate the export of waste glass, paper, plastics, and tyres not processed into value-added material. The regulations generally aim to ensure that exports are ready for use as a product, and do not cause harm to environmental or human health overseas. Figure 3 shows the trend in exports of these materials alone. Regulation of paper and cardboard is not set to commence until 1 July 2024. Scrap plastic exports peaked at 203 kt (kilotonnes, or thousands of tonnes) in 2015-16 and were 107 kt in 2021-22, their lowest level since 2006-07. Regulation of mixed plastics exports commenced on 1 July 2022 and will be further regulated from 1 July 2022. The export of waste glass has been regulated since 1 January 2021. Exports rose from 377 t (tonnes) to 1,657 t in 2021-22. Tyre exports were at 95 kt, slightly lower than in 2020-21.

Figure 3 Exports of waste glass, paper, plastics, and tyres, 2006-07 to 2021-22 (Mt)

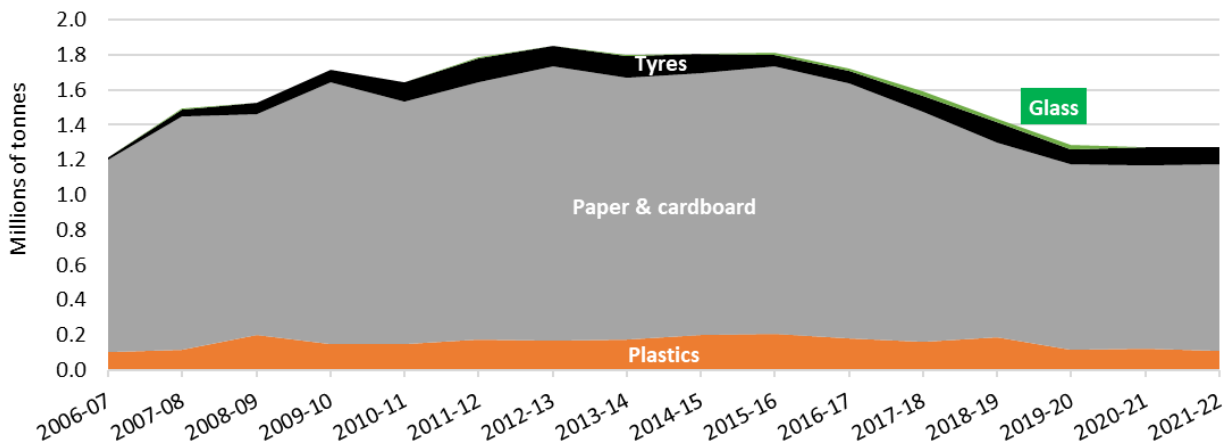


Figure 4 and Figure 5 look more closely at trends since 2014-15 in the export of two of the key material categories subject to regulation under the *Recycling and Waste Reduction Act 2020*: paper and cardboard, and plastics. The figures highlight the changes in quantities by grade. Until 2016-17, most exports of these materials were sent to China but, following its import restrictions, China received only 0.2% of scrap exports of paper and cardboard and plastic.

Figure 4 shows exports of paper and cardboard by grade. Exports were fairly stable across all grades, with a small increase in the largest stream, unbleached kraft (cardboard).

Figure 4 Exports of scrap paper and cardboard from Australia by grade by financial year (kt)

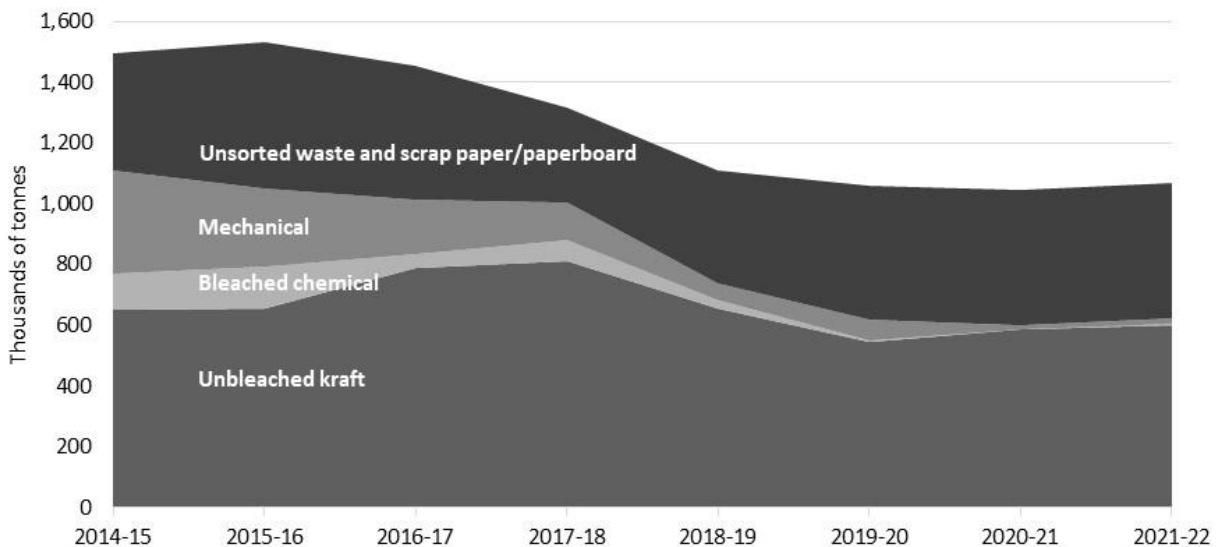
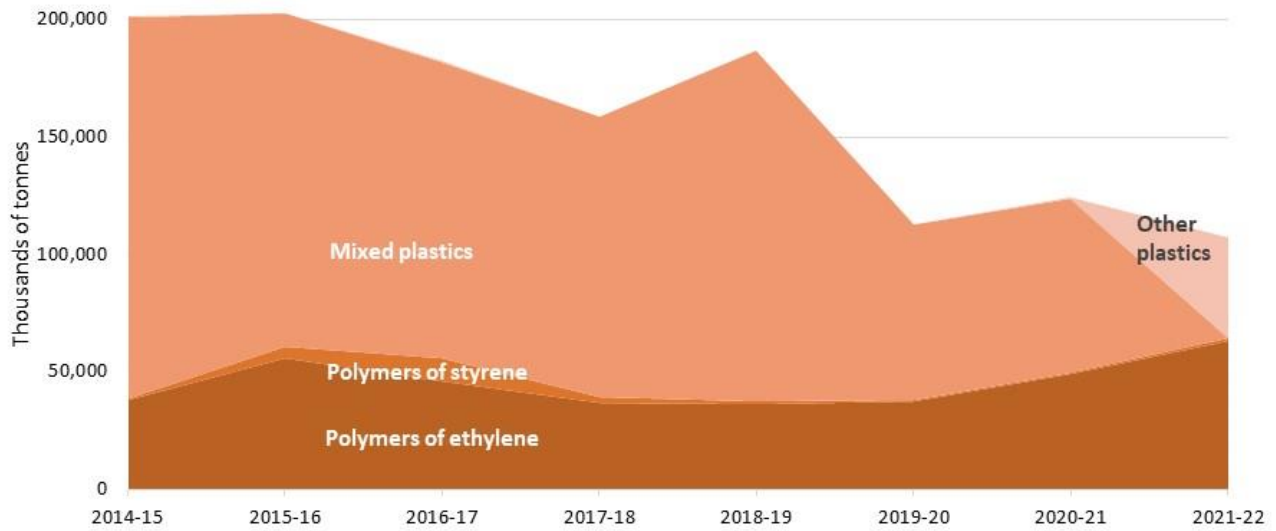


Figure 5 similarly shows exports of plastics since 2014-15. In all years except the last, the largest export grade is mixed plastics, which are predominantly poorly sorted materials from domestic recycling collections, followed by polymers of ethylene, which are mainly sorted HDPE, LDPE and PET packaging. The largest markets for plastic are Malaysia followed by Indonesia. The dip in exports from 2018-19 and 2019-20 are due to these two destinations introducing import restrictions which focused on contamination rates. Since this dip, exports have gradually risen. Australia regulated the export of unsorted mixed plastics in July 2021, which explains the cessation of exports of that grade and the expansion of other grades in 2021-22.

Figure 5 Exports of waste plastic from Australia by grade by financial year (kt)

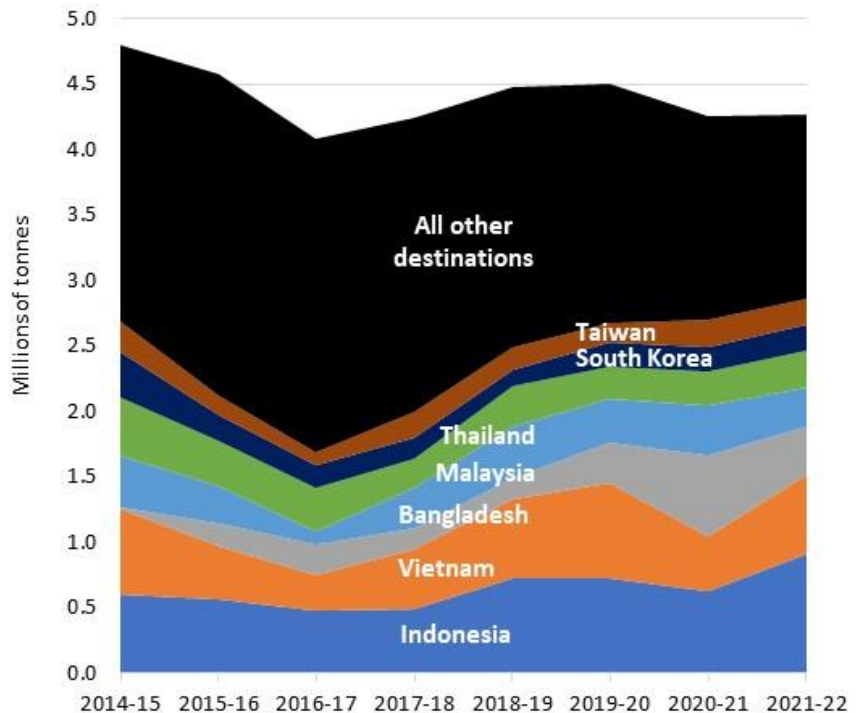
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Exports of end-of-life tyres were also regulated during 2021-22, with regulations commencing on 1 December 2021. The individual export codes for tyres do not appear to correspond closely with particular product types so are not shown here. Trends in aggregate scrap tyre codes can be seen in Figure 7.

Figure 6 shows exports of waste and recovered materials by destination since 2014-15, ranking the seven destinations that received the most materials in 2021-22. Exports to Indonesia and Vietnam continue to grow. China was the top ranked destination until 2016-17 when it received 1.26 Mt and 30% of Australia's waste exports. Its imports have since dropped dramatically, and in 2021-22 it is no longer one of the top seven destinations. India has also dropped out of the top seven destinations in 2021-22.

Figure 6 Exports of waste from Australia by financial year, showing the top seven destinations (Mt)



2021-22 in focus

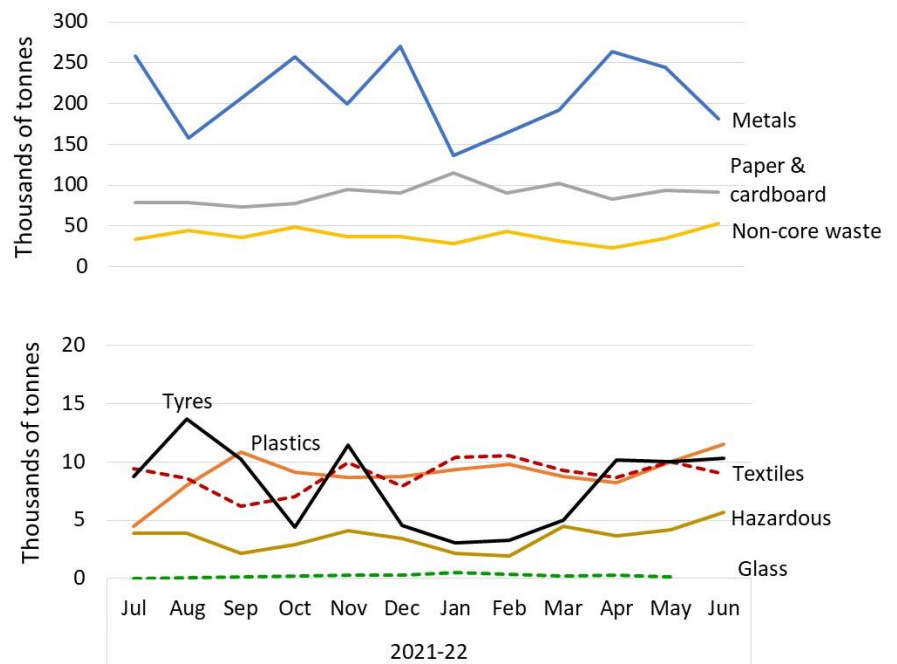
Figure 7 presents the monthly trend in exports of waste from Australia in tonnes by material between July 2021 and June 2022.

Scrap metal export tonnages varied, with large dips in August and January. Vietnam, Indonesia and Bangladesh accounted for 54% of metal exports.

Scrap paper and cardboard exports have remained steady throughout the year, with a slight peak in January. Indonesia received 57% of Australia’s scrap paper and cardboard exports. Malaysia (15%) and Vietnam (13%) were the next two highest destinations.

Non-core waste exports, which are primarily agricultural organics, were also steady throughout the year. Vietnam (26%) and Japan (20%) received the most.

Figure 7 Monthly exports of waste and recovered materials from Australia by material, July 2021 to June 2022 (kt)



Exports of scrap plastic rose during the first quarter of 2021-22 as the market adjusted to the Australian Government’s introduction of regulation on the export of mixed plastics, then remained consistent. The main recipients were Malaysia (36%) and Indonesia (21%).

Scrap tyre exports dipped when export regulations commenced in December 2021, then rebounded in the fourth quarter of 2021-22. India was the main recipient (50%), followed by Malaysia (21%).

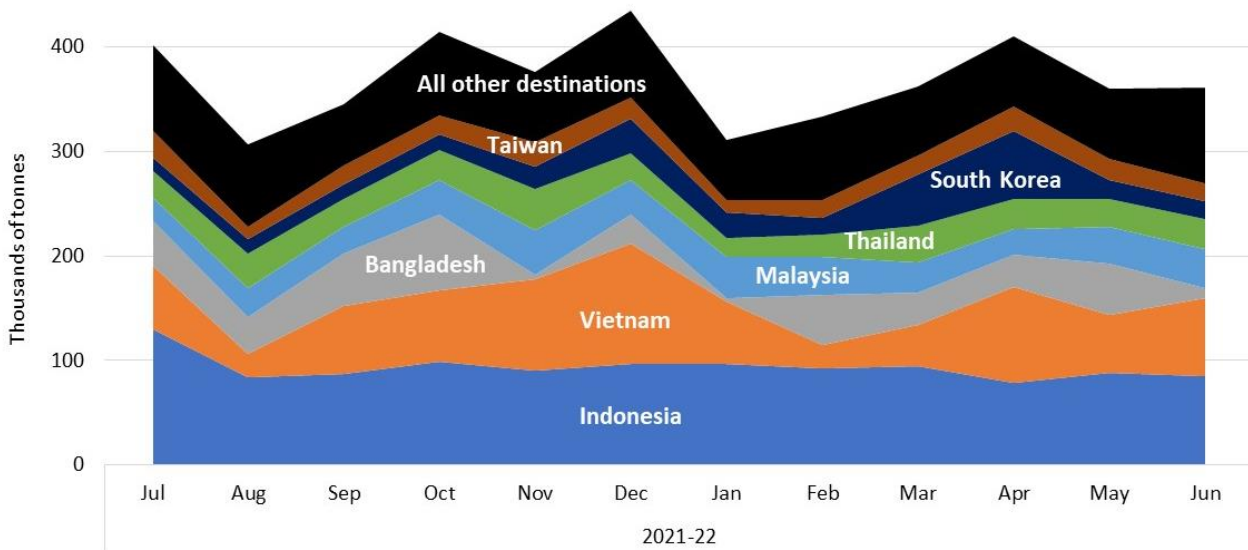
Export of textiles (nearly all used clothing) remained mostly consistent throughout the year, with a significant majority going to UAE (68%).

Exports of hazardous waste fluctuated between 1.9 and 5.7 kt/month. Lead waste and scrap contributed 84% of hazardous waste. Slag, ash and residues was the next main contributor (11%). The main recipient of hazardous waste was South Korea, receiving 51% of hazardous waste exports.

The regulation of unprocessed glass waste exports commenced from 1 January 2021. Exports of assumed beneficiated glass cullet were only 3.3 kt.

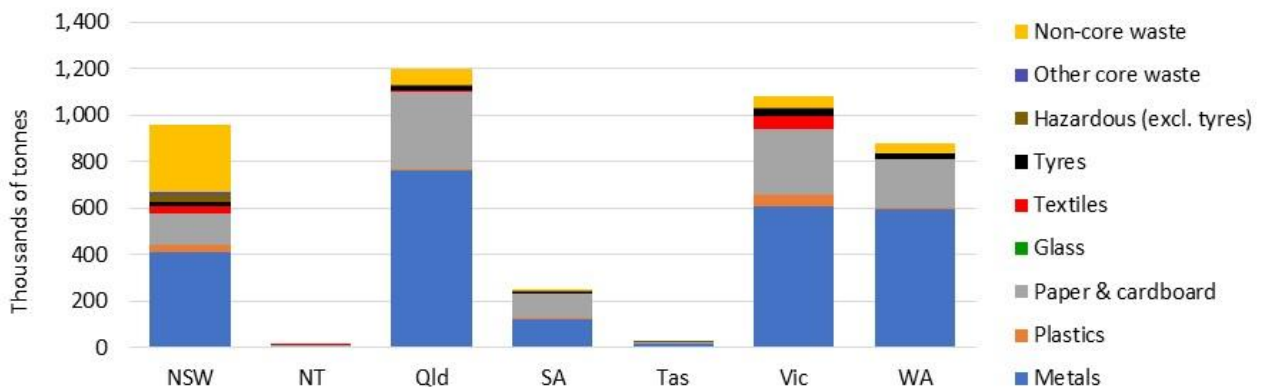
Figure 8 shows the monthly exports from Australia during 2021-22, ranking the seven destinations receiving the most materials (from the bottom). Indonesia was the biggest export destination, receiving a total of 1.1 Mt of waste exports, mainly receiving scrap metals and paper and cardboard. Vietnam was the second biggest export destination; the quantities fluctuated significantly because it mainly receives metals, which vary by month. China has dropped out of the top seven export destinations as a result of its import restrictions in January 2021.

Figure 8 Exports of waste from Australia by month showing the top seven destinations, 2021-22 (kt)



Australia’s 2021-22 exports of waste and recovered materials were from the jurisdictions shown in Figure 9. Queensland (1.2 Mt) and Victoria (1.1 Mt) were the two highest exporting jurisdictions, followed by NSW (0.96 Mt). Queensland exported the most metals (764 kt) and paper and cardboard (332 kt). Victoria exported the most plastics (53 kt), textiles (57 kt) and tyres (33 kt).

Figure 9 Australia 2021-22 waste exports by jurisdiction of origin (kt)



Most waste was exported from a port within its jurisdiction of origin. NSW exported 82% through Sydney, NT exported 99% from Darwin, Queensland exported 65% through Brisbane, SA exported 93% through Port Adelaide, Tasmania exported 53% through Launceston and Burnie (with most of the remainder through Melbourne), Victoria exported 91% through Melbourne and WA exported 79% through Fremantle. It is understood that exported materials generated in the Australian Capital Territory are typically exported from Sydney.

Figure 10 shows Australia’s 2021-22 waste exports by port of loading. Most exports were from: Melbourne (27%); Sydney (19%); Brisbane (19%); and Fremantle (17%). Scrap metal was the largest category at all ports, and paper and cardboard was the second largest at all except Sydney.

Figure 10 Australian 2021-22 waste exports by port of loading (kt)

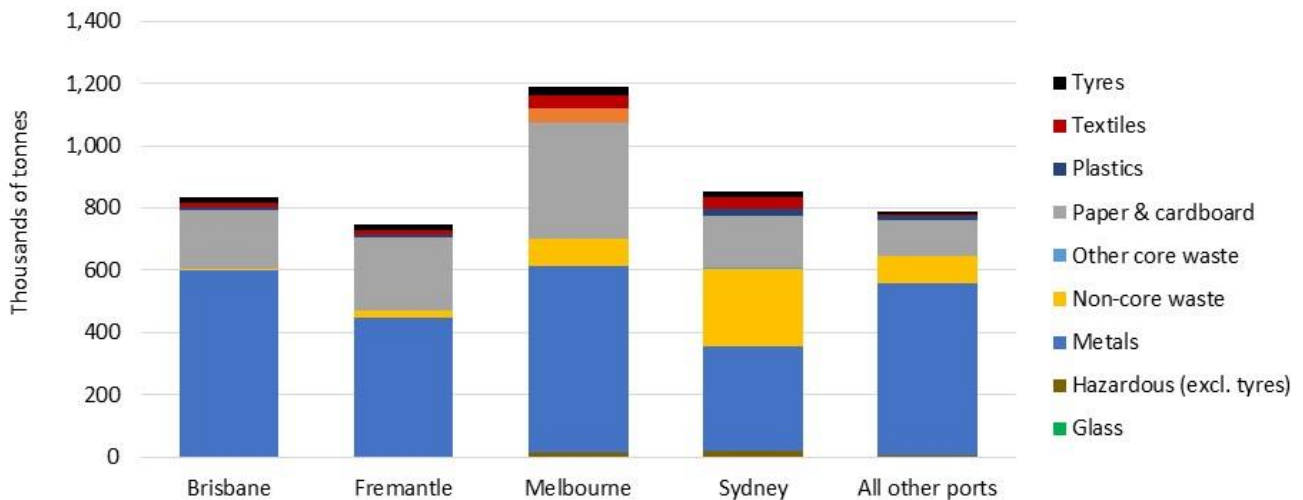
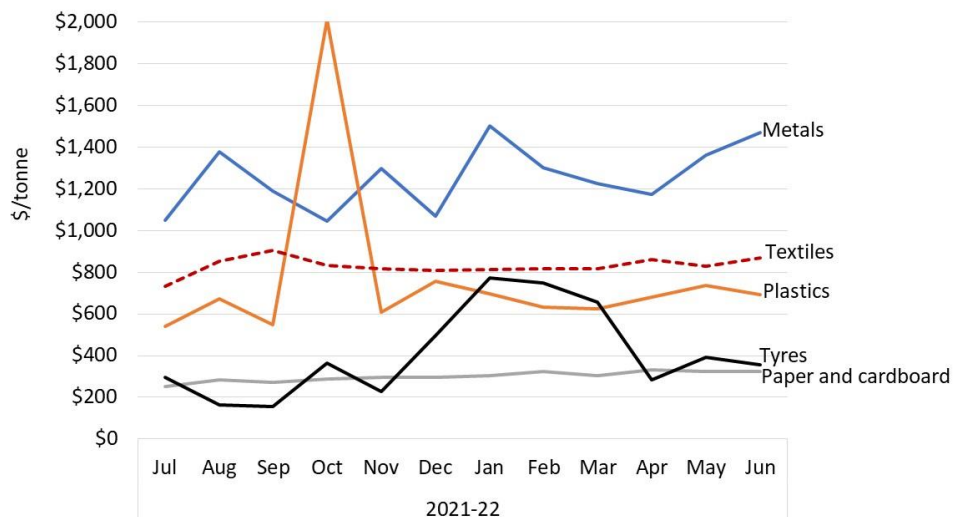


Figure 11 presents monthly trends in the reported unit values of key waste-derived material exports from July 2021 to June 2022. The metals have increased gradually, while paper and cardboard, and textiles have been consistent throughout the year. Plastics and tyres have both seen fluctuations throughout the year but are seeing an increasing trend overall<sup>5</sup>.

Figure 11 Comparison of average unit prices by material, July 2021 to June 2022 (\$/tonne)



### Q4 2021-22 in focus

In Q4 2021-22, Australia exported 1.17 Mt of waste and recovered materials with a reported value of \$1.23 billion. This was an increase of 19% in tonnes and 23% in value compared to the Q3 2021-22 totals of 0.98 Mt and \$1.01 billion. Indonesia received 21%, the most of all recipients, followed by Vietnam (19%). In Q4 2021-22, Japan and the US overtook China and Pakistan for the 9<sup>th</sup> and 10<sup>th</sup> ranked destinations by received tonnes over the whole financial year. Compared to the last quarter, all major export categories grew other than paper and cardboard, which fell by 13%.

### Context – Australian waste exports compared with overall waste flows

The *National Waste Report 2020* found Australia generated 74 Mt of waste in 2018-19, sending 60% (43 Mt) to recycling, 3% to energy recovery and the remainder to disposal fates, such as landfill or incineration<sup>6</sup>. The 2021-22 exports total of 4.4 Mt of waste and recovered materials therefore represents about 10% of national recycling and 6% of national waste generation.

<sup>5</sup> The October 2021 spike in the reported value of exported scrap plastics is due to an error in a single reported transaction.

<sup>6</sup> Waste data for 2020-21 will soon be published in the *National Waste Report 2022*. Preliminary data suggests only marginal change from the 2018-19 values referenced here.

Table 1 compares quantities of recycling in Australia with exports of waste and recovered materials, noting that nearly all exports are destined for recycling or energy recovery. The hazardous and ‘other’ categories are combined because the proportions of both are low.

The table suggests that 2021-22 exports accounted for 61% of tyres, half of recovered metals, a third of plastics and almost a third of paper and cardboard. Nearly all other recovered materials were recycled in Australia. These encompass a wide range of materials, but most of the tonnes were masonry materials, organic wastes, and fly ash from coal-fired power stations.

*Table 1 Data comparing Australian exports and overall recovery of key wastes*

Waste trade group	Generated in 2018-19 (kt)	Recovered in 2018-19 (kt)	Exported in 2021-22		
			(kt)	(\$m value)	(% of 2018-19 recovery)
Glass	1,160	690	1.7	\$0.45	0.2%
Metals	5,600	5,040	2,500	\$3,116	50%
Other core and hazardous <sup>7</sup>	50,230	35,700	460	\$409	0.4%
Paper and cardboard	5,920	3,500	1,100	\$322	30%
Plastics	2,540	330	110	\$83.1	33%
Tyres	449	160	100	\$31.6	61%

### Australian waste export regulation

A March 2020 meeting of the then Council of Australian Governments agreed to a timetable for implementing a waste exports licensing scheme to regulate the export of waste glass, paper, plastics, and tyres not processed into a value-added material. These regulations were legislated under the *Recycling and Waste Reduction Act 2020*, and several have been implemented to date:

- Export of unprocessed **glass** waste has been regulated since 1 January 2021. Australia has only exported low quantities of processed glass (e.g. furnace-ready glass cullet) since.
- Regulation of the export of scrap **mixed plastics** commenced in July 2021, and Australia has not exported any mixed waste plastics since. Broadly, export tonnages of plastics have since trended downwards while plastic values are increasing, reflecting the shift from mixed plastic bales to higher grade single polymer streams. Further regulation on the export of **sorted plastics** came into effect on 1 July 2022, but that date is subsequent to the data covered in this report so the effects are not yet apparent.
- Export of whole baled **tyres** or tyres in pieces larger than 150 mm have been regulated since December 2021. Exports of tyres have apparently declined significantly since the regulations came into effect<sup>8</sup>.

Some hazardous wastes are also regulated for export under the *Hazardous Waste (Regulation of Exports and Imports) Act 1989*.

The regulation of sorted plastics commenced on 1 July 2022 and the regulation of sorted paper and cardboard will commence on 1 July 2024. Material possible impacted by these are described in Table 2, together with exported quantities from 2021-22.

<sup>7</sup> Includes large waste streams such as construction and demolition wastes, organics, ash and contaminated soils.

<sup>8</sup> Tyre exports in the ABS data have generally been lower than tonnages reported by industry sources. Significant miscoding is likely.



Table 2 Materials facing export regulations (to commence post 2021-22)<sup>9</sup>

AHECC code	AHECC description	2021-22 exports (tonnes)
<b>Plastics (regulated as at 1 July 2022)</b>		
39151001	Waste, parings and scrap of polymers of ethylene with a specific gravity of <0.94 (excluding those of a single thermoplastic material, transformed into primary forms)	43,000
39151002	Waste, parings and scrap of polymers of ethylene with a specific gravity of >0.94 (excluding those of a single thermoplastic material, transformed into primary forms)	20,000
39152001	Waste, parings and scrap of polymers of styrene expanded (excluding those of a single thermoplastic material, transformed into primary forms)	300
39152002	Waste, parings and scrap of polymers of styrene (excluding of polymers of styrene expanded and those of a single thermoplastic material, transformed into primary forms)	400
39153001	Waste, parings and scrap of polymers of vinyl chloride unplasticised (excluding single thermoplastic material, transformed into primary forms)	20
39153002	Waste, parings and scrap of polymers of vinyl chloride (excluding those of polymers of vinyl chloride unplasticised and of a single thermoplastic material, transformed into primary forms)	-
39159093	Waste, parings and scrap of polymers of ethylene terephthalate (excluding those of a single thermoplastic material, transformed into primary forms)	42,000
39159094	Waste, parings and scrap of polymers of propylene (excluding those of a single thermoplastic material, transformed into primary forms)	1,500
39159095	Waste, parings and scrap, of plastics (excluding those of polymers of ethylene, styrene, vinyl chloride, ethylene terephthalate or propylene; and those of a single thermoplastic material, transformed into primary forms)	-
	<b>Total plastics</b>	<b>107,500</b>
<b>Paper and cardboard (to be regulated from 1 July 2024<sup>10</sup>)</b>		
47071000	Recovered (waste and scrap), unbleached, kraft paper or paperboard or corrugated paper or paperboard	602,000
47072000	Recovered (waste and scrap) paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass	1,000
47073000	Recovered (waste and scrap) paper or paperboard, made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)	19,000
47079000	Waste and scrap paper or paperboard (incl. unsorted waste & scrap) (excl. unbleached kraft or corrugated (470710)); that made mainly from bleached chemical pulp, not coloured in the mass (470720); or made mainly of mechanical pulp (470730))	447,000
	<b>Total paper and cardboard</b>	<b>1,069,000</b>

<sup>9</sup> This table covers materials facing regulation and does not include materials for which regulations are already in place.

<sup>10</sup> The legislative rules (including specifications and AHECC codes to be captured) around the regulation of paper and cardboard are still to be developed, ahead of regulations commencing on 1 July 2024.

## Analysis and comment

Scrap plastics are subject to many restrictions, including import regulations applied by most of our key waste trade partners, as well as the Basel Convention amendment on scrap plastic trade. Scrap plastic waste has also been scrutinised by global shipping groups such as CMA CGM, which stated it will stop transporting plastic waste from June 1 2022<sup>11</sup>. Scrap plastic waste export volumes fell by 13% between 2020-21 and 2021-22. The proportion of mixed plastics exported dropped from 56% in 2020-21 to nil in 2021-22 due to Australia's regulation of waste plastic exports implemented from 1 July 2021. Under the regulations exporters have been obliged to sort plastics for export into single resin or polymer types to comply with the rules.

The scrap plastics export codes (chapter 3915) do not apply to reprocessed plastics that have been transformed into 'primary forms'. This means that recovered single polymer plastics that have been processed into clean flake or pellets are considered 'primary' resins, and it is acceptable for this material to be exported under the same codes as virgin plastics, which are across chapters 3901–3914 in the AHECC. There is evidence of about 27 kt of reprocessed plastics exported under the 3901–3914 codes in 2020–21. This may have grown in 2021–22 but the actual quantity could not be confirmed.

Until 2016-17, over 60% of Australia's exports of scrap paper and cardboard went to China but in 2021-22 they were almost zero. Overall exports of paper and cardboard have remained almost unchanged over the past four years, with Indonesia being the leading destination. While export volumes were similar, the reported value of scrap paper and cardboard exports rose by 48% in 2021-22. The average value per tonne was the highest recorded in the 16-year data set and more than 73% higher than the average price recorded in December 2020<sup>12</sup>, before China's total ban in 2020-21.

End-of-life tyre exports fell slightly in 2021-22 after a resurgence in 2020-21. India remains Australia's key trading partner for end-of-life tyres. However, India is planning to restrict waste tyre imports<sup>13</sup> and, along with Australia's regulation of the export of whole baled waste tyres implemented in December 2021, the end-of-life tyre market may be subject to significant changes. It should be noted that export quantities in the ABS data are generally lower than reported through industry sources and calculated via mass balance, indicating significant miscoding.

Exports of unprocessed glass were regulated under the waste exports licensing scheme from 1 January 2021. However, exports of glass have increased in 2021-22; a large one-off shipment of glass from food and beverage containers explains the bulk of the exports.

Annual scrap metal export volume continued to remain stable in 2021-22, although tonnages were variable on a quarterly basis. The variability is linked to scrap metal price fluctuations and shipments. Average prices were the highest recorded in the 16-year data set at \$1,230 per tonne, and the overall value of exports was also the highest, climbing 33% to \$3.1 billion.

Exports of hazardous waste have been consistent since 2015-16, with no significant changes in 2021-22.

Despite ongoing COVID-19 impacts affecting global shipping availability<sup>14</sup>, container availability and port constraints, 2021-22 has seen an overall increase in waste exports – higher than 2019-20 volumes and almost as high as 2018-19 volumes. A significant increase in total waste export values was also seen this year, with all materials trending upwards.

<sup>11</sup> Reuters (11 February 2022) [Shipping firm CMA CGM to stop transporting plastic waste.](#)

<sup>12</sup> Industry Edge (25 February 2022) [Recovered paper export prices at record levels.](#)

<sup>13</sup> GDT6 (1 February 2022) [Media release: India closing the door to waste tyre imports.](#)

<sup>14</sup> Murray B, Koh A, Varley K (26 April 2022) [Global supply chain crisis flares up again where it all began.](#)

## Restrictions on waste imports in export destinations

The current status of import restrictions in Australia’s top 10 waste export destinations in 2021-22 is summarised in Table 3. Table 4 provides details of the import restriction policies, their dates, and potential impacts, excluding those associated with hazardous wastes restricted through the terms of the Basel Convention.

*Table 3 Summary of import restrictions by material and top 10 destinations*

Destination	Plastics	Paper and cardboard	Metals	Haz. waste (excl. tyres)	Tyres	Glass	Textiles
Indonesia	Restricted	Restricted	Restricted	Restricted <sup>15</sup>	Restricted	Restricted	
Vietnam	Restricted	Restricted	Restricted				
Bangladesh	Restricted						
Malaysia	Restricted	Restricted	Restricted	Restricted <sup>15</sup>			
Thailand	Restricted						
South Korea	Restricted	Announced		Restricted <sup>15</sup>	Announced		
Taiwan	Restricted	Restricted		Restricted <sup>15</sup>			
India	Restricted		Considering		Considering		
Japan <sup>16</sup>	Restricted						
USA <sup>16</sup>							

<sup>15</sup> Australian companies cannot export hazardous waste to this destination as it is not a signatory to the Basel Convention or it is bound by the Basel Convention ‘Ban Amendment’.

<sup>16</sup> The inclusion of Japan and the USA in this list for the first time is due to large exports of non-core organic wastes and by-products.

Table 4 Status of waste import restrictions (non-hazardous waste)

Destination	Scope of restrictions	Announced and/or implemented	Associated materials	Associated tonnes (2020-21)	Associated tonnes (2021-22)	Impact on imports from Australia
Indonesia	On 21 November 2021 the Indonesian Government published a decree on import restrictions for non-hazardous and toxic material waste <sup>17</sup> . Importation of scrap material is only allowed in certain ports and must be shipped directly <sup>18</sup> . This limits contamination of imported scrap plastics and paper to 2%. The head of the Centre for Green Industry, Standardization and Industrial Service Policy noted the importance of the recycling industry to Indonesia's economy and the necessity for imports to provide sufficient feedstocks <sup>19</sup> .	Imp.: Nov-19, with further restrictions on May-20	Plastics, paper and cardboard, metals, glass, tyres, other	891,000 (222,700 per quarter)	1,100,000 (274,900 per quarter)	Imports reduced from 181 to 157 kt per quarter from 2018-19 to 2019-20. They have since risen – the 2021-22 quarterly average for associated materials was 275 kt.
Vietnam	On 24 September 2020 Vietnam published <sup>20</sup> 'Promulgation of the list of waste permitted for import as production materials', overriding previous regulations. Unsorted scrap paper imports and granulated slag from iron and steel manufacture have been banned since the end of 2021. This builds on a range of 2018 restrictions that allow waste imports only if shipments meet environmental standards and processing capacity is demonstrated. The earlier restrictions covered scrap metals, plastic, paper, glass, and blast furnace slag dust <sup>21</sup> . Under new national standard QCVN 32: 2019/BTNMT, import of e-waste plastics (e.g. TVs and computers) would be forbidden <sup>22</sup> . Scrap metal waste needs to be 99% metal to be allowed in <sup>23</sup> .	Imp.: Dec-21 (building on existing restrictions from 2018)	Plastic, paper, metals	535,000 (133,800 per quarter)	648,000 (161,900 per quarter)	Imports reduced from 183 to 157 kt per quarter from 2018-19 to 2019-20, after the initial restrictions. Imports rose to 134 kt per quarter in 2020-21, but increased to 162 kt per quarter in 2021-22.

<sup>17</sup> Minister of Trade, Minister of Environment and Forestry, Minister of Trade Industry and Head of State Policy, Republic of Indonesia (May 2020) [Implementation of import of non-hazardous and toxic material waste as raw material industry](#). Unofficial translation.

<sup>18</sup> Ministry of Trade, (26 November 2019), [https://images.maqnetmail.net/images/clients/ISRIID/attach/2019\\_11\\_26MinistryofTradeRegulationNumber84year2019ENSUMMARY.pdf](https://images.maqnetmail.net/images/clients/ISRIID/attach/2019_11_26MinistryofTradeRegulationNumber84year2019ENSUMMARY.pdf). Unofficial translation.

<sup>19</sup> AntaraNews (2021) [Recycling industry processing just one-third of nation's waste: govt.](#)

<sup>20</sup> Prime Minister of Vietnam (24 September 2020) [Promulgation of the list of waste permitted for import as production materials](#). Unofficial translation.

<sup>21</sup> Vietnam - National Technical Regulations on Wastes (18 November 2019) [https://www.cciiclondon.com/portal/article/index/cat\\_id/35/id/286.html](https://www.cciiclondon.com/portal/article/index/cat_id/35/id/286.html).

<sup>22</sup> Ministry of Natural Resources and Environment of the Socialist Republic of Vietnam (2018) [Vietnam to ban imports of plastic from used electronics](#).

<sup>23</sup> S&P Global Platts (2019) [Vietnam's Jan scrap imports plunge amid stricter government rules](#).

Destination	Scope of restrictions	Announced and/or implemented	Associated materials	Associated tonnes (2020-21)	Associated tonnes (2021-22)	Impact on imports from Australia
Bangladesh	The Bangladesh Ministry of Commerce Import Policy Order 2015-2018 includes details of waste import regulations <sup>24</sup> . Plastics are restricted, metals and glass are allowed for bona fide industrial units, paper and cardboard is unrestricted, and textiles are allowed with some restrictions.	Imp: 2016	Plastics	0	0	None.
Malaysia	Malaysia has restricted waste plastic imports since July 2018. In January 2022, it implemented restrictions on scrap ferrous metals, copper and aluminium <sup>25</sup> and waste paper <sup>26</sup> . The metals restrictions require a primary metal concentration of at least 94.75%, a maximum threshold of 0.25% non-metal and no electronic content. Mixed paper and cardboard cannot be imported to Malaysia. All scrap metal and waste paper are subject to inspection and require a 'certificate of approval'.	Imp.: Plastics – Jul-18 Metals and paper and cardboard – Jan-22	Plastics, metals, paper and cardboard	242,000 (60,500 per quarter)	348,000 (86,900 per quarter)	Imports have increased in this quarter compared to last year's rate. Impacts may become evident in coming months.
Thailand	Thailand has restricted plastic waste imports since August 2018. It is implementing a total ban on plastic waste imports via a phased reduction by 20% per annum across 2022 to 2026 <sup>27</sup> .	Imp.: Aug-18 Ann.: Jan-20 (total ban)	Plastics	4,000 (1,000 per quarter)	0	Imports reduced from 1 kt per quarter in 2020-21 to nil in 2021-22.
South Korea	On 6 January 2021, the Ministry of Environment announced bans or restrictions on their top 10 waste import materials <sup>28</sup> . Total imports are to reduce by 35% by 2022 and 65% by 2025. Bans on plastics, mixed waste paper and waste fibre were set to commence in 2022, although it is not clear at the time of writing if they have, and on coal ash and tyres in 2023. Corrugated cardboard, dust and sludge will be subject to restrictions in 2023 <sup>29</sup> . A ban on imports of PET, PE, PP and PS came into force at the end of June 2020 <sup>30</sup> .	Imp.: Plastics – Jun-20 Ann.: Jan-21 (mix plastics, paper, etc.)	Plastics	1,000 (240 per quarter)	1,000 (200 per quarter)	This year's waste plastic imports were 200 tonnes per quarter, lower than the 2020-21 quarterly average of 240 tonnes.

<sup>24</sup> Ministry of Commerce, Government of the People's Republic of Bangladesh (2016) [Import Policy Order 2015-2018](#).

<sup>25</sup> Ministry of International Trade and Industry (2022) [Guidelines for Importation and Inspection of Metal Scrap, January 2022](#).

<sup>26</sup> Ministry of International Trade and Industry (2022) [Guidelines for Importation and Inspection of Waste Paper, January 2022](#).

<sup>27</sup> Bangkok Post (6 August 2021) [Plastic waste imports are 'unwanted'](#).

<sup>28</sup> Business Korea (7 January 2021) [Waste import ban roadmaps to come out soon](#).

<sup>29</sup> Inquirer.net (10 January 2021) [S. Korea to phase out industrial waste imports](#).

<sup>30</sup> The Korea Times (2020) [Plastic waste imports banned in Korea amid mounting local trash](#).

Destination	Scope of restrictions	Announced and/or implemented	Associated materials	Associated tonnes (2020-21)	Associated tonnes (2021-22)	Impact on imports from Australia
Taiwan	Import of waste plastics is limited to licensed local firms that import waste plastics originating from their own overseas production processes or are a single material, but not from original production processes <sup>31</sup> . Paper imports are restricted to deinked paper, kraft paper, corrugated paper or cardboard that is not bleached. Import of waste newspapers and magazines is banned.	Imp.: Oct-18	Plastics, paper and cardboard	5,200 (1,300 per quarter)	5,000 (1,200 per quarter)	Imports fell from 5.2 kt in 2020-21 to 5 kt in 2021-22. Imports this quarter were low at 1.2 kt.
India	In 2016 India banned the import of scrap plastics but exempted 'special economic zones' and 'export-oriented units'. In August 2019 <sup>32</sup> the ban was extended to these zones but in January 2021 this was revoked, meaning scrap plastics can again be imported to these areas. In December 2021, India reopened permitted importing of PET bottles. India sets a contamination limit of 1% for recovered paper <sup>33</sup> and has proposed a new policy seeking to increase local scrap metal processing and reducing reliance on imports <sup>34</sup> .	Imp.: 2016	Plastics	400 (100 per quarter)	0	Waste plastics imports to India are low, and were nil in 2021-22.
Japan	Japan has restricted plastic waste imports; the Ministry of the Environment allows plastic waste imports based on contamination levels <sup>35</sup> .	Imp.: Mar-20	Plastics	0	0	None.
USA	None.	None.	None.	0	0	None.

<sup>31</sup> Taipei Times (2018) [New waste plastic, paper import rules to take effect.](#)

<sup>32</sup> Business Today, (24 June 2019) [India bans import of plastic waste from August this year to curb pollution.](#)

<sup>33</sup> Waste Dive, (15 January 2020) [India to enforce 1% contamination rate on paper imports, conduct random inspections.](#)

<sup>34</sup> Bone C. (2021) [India mulls over self-sufficient future without imported scrap.](#)

<sup>35</sup> Ministry of the Environment (2020) [Import regulation of plastic waste in Asian countries \(provisional: as of March 2020\).](#)