

## Exports of Australian waste and recovered materials in November 2020

14 March 2021, Joe Pickin and Sally Donovan

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Blue Environment is commissioned by the Department of Agriculture, Water and the Environment to produce, analyse and report on monthly exports of waste and recovered materials<sup>1</sup>. The original data is provided by the Australian Bureau of Statistics<sup>2</sup> (ABS), and comprises monthly data and updates to previously reported data<sup>3</sup>. The ABS data is transformed to account for issues such as trade codes covering a mixture of wastes and non-wastes, and making it consistent with national waste data methods. On a tonnage basis nearly all these exports are materials recovered from waste streams for recycling<sup>4</sup> or energy recovery, but a small portion is hazardous waste sent for treatment. Monthly data is highly variable, and trends may be best perceived through the annual reports produced in this series.

### Summary

In November 2020, Australia exported about 302,000 tonnes of waste and recovered materials with a value of \$243 million<sup>5</sup>. This represents a decrease of 29% in tonnage and 12% in value compared to the previous month. The exports included 279,000 tonnes (92%) within the current scope of national waste reporting ('core waste plus ash').

About 97,000 tonnes were exported in November in codes that could be affected by the COAG export bans. This is 32% of the total exports of waste and recovered materials.

No obvious effects of the COVID-19 pandemic are apparent in the data.

### Comparison by destination

The top 10 recipients of Australian waste and recovered materials between July 2019 and November 2020 were, in order, Indonesia, India, Bangladesh, Vietnam, Malaysia, China (including Hong Kong and Macau), Thailand, Taiwan, Republic of Korea and Pakistan. In November 2020, 90% by weight of Australia's exported waste and recovered materials were sent to these countries.

Table 1 (overleaf) compares exports of waste and recovered materials to these top 10 countries in October and November 2020 and includes each country's 2019-20 monthly average. Exports to China fell sharply to their lowest level in the 41 months for which data is available, possibly signalling exporters finding alternative markets ahead of China's upcoming imports ban in January 2021. The value of exports to the Republic of Korea increased significantly despite a decrease in tonnage, due to a large shipment of anomalously high value copper slag in November.

The main exports of waste and recovered materials to Bangladesh (100%) and Taiwan (94%) were metals. Metals also made up the majority of exports received by India and Pakistan (both 77%), the remainder mainly consisting of paper and cardboard (15% and 11% respectively). Paper and cardboard exports to China were lower than recent months, but remained the largest share at 60%, followed by metals (29%) and plastics (10%). Exports of paper and cardboard to Indonesia were significantly higher than in recent months, possibly diverted from China. They accounted for 58% of Indonesia's exports and metals made up 35%. Exports to Thailand were mainly metals (54%) and paper and cardboard (45%). Exports to the Republic of Korea were metals (55%), hazardous waste (19%), and wastes in the 'other' category – namely

<sup>1</sup> The export codes mapped to waste and recovered materials in 2020-21 differ slightly from those in 2019-20. Details are given in the accompanying workbook (under 'Ref lists'). The historical data presented here has been updated.

<sup>2</sup> Data in these summaries is originally entered by exporters or their agents. It cannot be guaranteed that exporters use the correct codes or values for their exports, so this data should be used with caution.

<sup>3</sup> Data may be revised for up to six months after initial publication as customs declarations are amended by individual traders. Due to these revisions, there may be discrepancies between this and preceding reports.

<sup>4</sup> Some of these recovered materials contain a proportion of contamination (or 'off-spec' content) that needs to be extracted before the material can be used.

<sup>5</sup> Dollar values refer to Australian dollars. Historical values are inflated based on the annualised consumer price index.

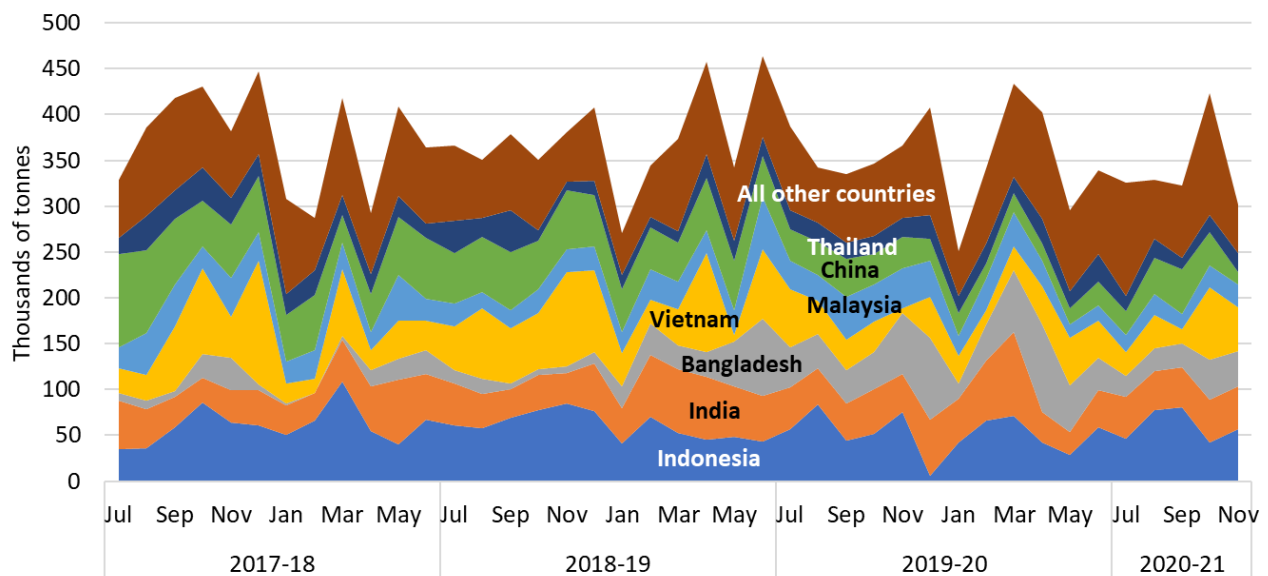
agricultural organics and e-waste (15%). Exports to Vietnam were metals (56%), paper and cardboard (25%) and agricultural organics (19%). Exports to Malaysia were also mixed including metals (34%), paper and cardboard (19%), tyres (19%) and plastics (15%).

**Table 1 Comparison of month-to-month exports of waste and recovered materials by destination**

Export destination (ranked by tonnes since July 2019)	Nov-20		Oct-20		2019-20 monthly avg tonnes	Nov-20	Oct-20	2019-20 monthly avg \$ mil	
	tonnes	% of total	tonnes	% change		\$ mil	\$ mil		% change
1 Indonesia	57,000	19%	42,000	34%	52,000	\$17.2	\$12.9	-33%	\$16.1
2 India	46,000	15%	46,000	0%	48,000	\$34.3	\$34.6	-1%	\$27.4
3 Bangladesh	38,000	13%	44,000	-13%	52,000	\$13.3	\$15.9	-17%	\$20.6
4 Vietnam	48,000	16%	79,000	-39%	35,000	\$15.4	\$31.8	-52%	\$14.3
5 Malaysia	25,000	8%	24,000	4%	32,000	\$14.0	\$15.2	-8%	\$13.2
6 China	14,000	5%	36,000	-62%	27,000	\$24.2	\$23.8	2%	\$28.3
7 Thailand	21,000	7%	18,000	13%	22,000	\$9.67	\$6.52	48%	\$7.62
8 Taiwan	6,200	2%	10,000	-37%	17,000	\$4.63	\$5.79	-20%	\$9.32
9 Korea, Republic of	7,200	2%	9,100	-22%	15,000	\$41.6	\$19.0	119%	\$39.4
10 Pakistan	8,600	3%	9,200	-6%	9,100	\$4.44	\$5.01	-11%	\$5.01
Top 10 total	271,000	90%	318,000	-15%	309,000	\$178.6	\$170.5	5%	\$181.3
<b>Monthly total</b>	<b>302,000</b>	<b>-</b>	<b>424,000</b>	<b>-29%</b>	<b>354,000</b>	<b>\$242.9</b>	<b>\$275.8</b>	<b>-12%</b>	<b>\$237.7</b>

Figure 1 presents the trend in tonnes of exports of waste and recovered materials from Australia by destination between July 2017 and November 2020. Monthly exports are volatile and no overall trend is evident over the 41-month timeframe. Exports to China are falling, likely due to the impending ban. Slight declining trends are apparent in exports to Indonesia and Vietnam, while those to Pakistan and Bangladesh have risen. In these four countries the largest share of exports is metals, and it may be that exports are shifting from other countries to Pakistan and Bangladesh, which have not implemented or announced any import restrictions on waste metals.

**Figure 1 Monthly exports of waste and recovered materials from Australia by destination**



The reported value of exports for November 2020 was \$243 million, down slightly from \$276 million in October, but greater than the 2019-20 monthly average of \$238 million. The less-significant decrease in value compared to tonnes appears to be due to a rise in the value of some metals.

## Comparison by material

Table 2 compares November 2020 export tonnages and values with October and with the 2019-20 monthly average, by material type. Around 92% falls within the current scope of national waste reporting (core waste plus ash).

*Table 2 Comparison of export tonnage and value by material*

	Nov-20		Oct-20		2019-20 monthly avg tonnes	Nov-20		Oct-20		2019-20 monthly avg \$ mil
	tonnes	% of total	tonnes	% change		\$ mil	% of total	\$ mil	% change	
Glass	60	0%	0	n/a	2,200	\$0.02	<1%	\$0.00	n/a	\$0.11
Hazardous (excl. tyres)	4,000	1%	3,000	32%	3,500	\$35.1	14%	\$43.7	-20%	\$37.1
Metals	169,000	56%	236,000	-28%	212,000	\$166	68%	\$176	-6%	\$163
Paper & cardboard	76,000	25%	85,000	-10%	88,000	\$13.0	5%	\$14.7	-11%	\$14.2
Plastics	11,000	4%	10,000	3%	9,400	\$3.49	1%	\$3.37	3%	\$2.59
Textiles	8,600	3%	8,100	6%	7,800	\$7.08	3%	\$6.19	14%	\$6.30
Tyres	10,000	3%	8,100	23%	7,100	\$2.51	1%	\$1.55	62%	\$1.47
Other	24,000	8%	74,000	-68%	24,000	\$15.8	7%	\$30.2	-48%	\$12.9
<b>Total</b>	<b>302,000</b>	<b>-</b>	<b>424,000</b>	<b>-29%</b>	<b>354,000</b>	<b>\$243</b>	<b>-</b>	<b>\$276</b>	<b>12%</b>	<b>\$238</b>

### Comparison with the previous month –

- **Glass** waste exports remained low in November, consistent with 2020-21 to date, as industry apparently prepared for the ban on glass waste exports (which came into effect at the start of 2021).
- Exports of **hazardous waste** (excluding tyres) increased from 3,000 to 4,000 tonnes between October and November 2020. The largest components were lead waste and scrap (57%), and lead-containing slag, ash and residues (40%). Copper containing slag, ash and residues accounted for less than 2% of the tonnes but 82% of the value of hazardous waste due to anomalously high reported value in an export flow from Townsville<sup>6</sup>.
- Monthly exports of scrap **metals** dropped from 236,000 to 169,000 tonnes but remained the largest portion of exported waste and recovered materials at 56%. The total value was \$166 million, or 68% of the total value of waste exports. The main recipients were Bangladesh (23%), India (21%), Vietnam (16%) and Indonesia (12%).
- Exports of recovered **paper and cardboard** in November 2020 remained consistent with the 2019-20 monthly average, as they had done since September. Exports to China fell to 11% of the total after it received the highest share for the previous few months, potentially indicating a shift due to the upcoming ban. Exports to Indonesia climbed from 21,000 to 33,000 tonnes, or 43% of the total. Exports also went to Vietnam (16%) and Thailand (12%). Unbleached kraft comprised 57% and unsorted scrap 42%. Despite being 25% of the tonnage of waste and recovered material exports, the value, at \$13.0 million, represented only 5% of the total.
- Exports of scrap **plastics** increased from 10,000 to 11,000 tonnes, exceeding the 2019-20 average. The largest recipients were Malaysia (34%), Indonesia (19%), China (13%) and Latvia (11%). Exported scrap plastics comprised mixed plastics (60%) and polyethylenes (39%). The value of plastic imports similarly grew from \$3.37 to \$3.49 million.
- Exports of waste **textiles** increased from 8,100 to 8,600 tonnes between October and November 2020. The main receiving countries were United Arab Emirates (52%) and Malaysia (22%). Worn clothing and other worn textile articles accounted for more than 99% of exported scrap textiles.
- Exports of waste **tyres** rose from 8,100 to 10,000 tonnes<sup>7</sup>. The main recipients were Malaysia (49%) and India (33%). The increase in value was proportionally higher than the increase in tonnes as the proportion of used pneumatic tyres rose from 18% to 22% and their value per tonne increased from \$488 to \$787.

<sup>6</sup> The reported value of this copper slag and ash waste exceeded \$470/kg. The value of pure copper is under \$10/kg.

<sup>7</sup> Tyre export quantities are much lower than reported through industry sources. Significant miscoding is likely.

- Exports in the waste category **other** dropped from 74,000 tonnes in October to 24,000 tonnes in November, due to unusually high levels of sawdust exports in October. The value decreased from \$30.2 to \$15.8 million. Most of the waste exported in this group was classified as agricultural organics.

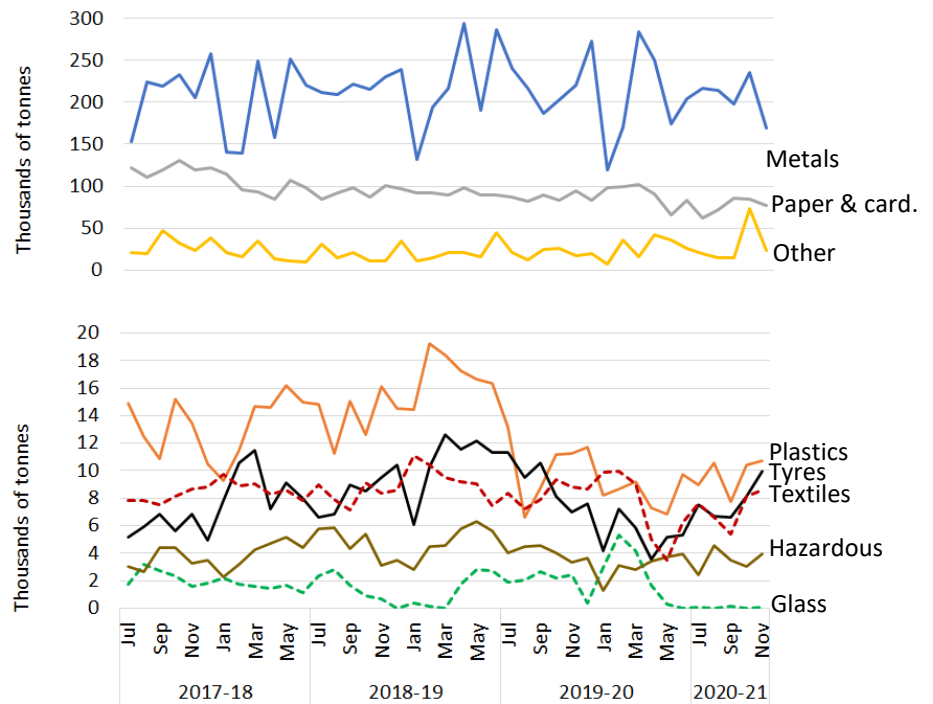
**Comparison with the 2019-20 monthly average** – November 2020 export tonnages were 15% lower than last year’s monthly average, and the value was 2% higher. The higher value can be largely traced to greater unit values of metals. The tonnages of glass, metals and paper and cardboard were below the 2019-20 monthly average, ‘other’ matched the average, and all other categories were higher.

Figure 2 presents the monthly trend in exports of waste from Australia in tonnes by material type between July 2017 and November 2020. Historically volatile scrap metal exports have been relatively stable since July 2020. Exports of scrap paper and cardboard were less changeable from month to month but show a consistent decline. Monthly scrap tyre exports fell steadily over 2019-20 to reach their lowest level in April but have since grown strongly<sup>7</sup>. Exports of recovered plastics fell in early 2017-18, recovered to peak in early 2019, then fell to a low in August. They have been consistent in 2020. Exports of recovered hazardous materials fell in early 2017-18, recovered to peak in early 2019, then fell to a low in August. They have been consistent in 2020. Exports of recovered glass fell in early 2017-18, recovered to peak in early 2019, then fell to a low in August. They have been consistent in 2020.

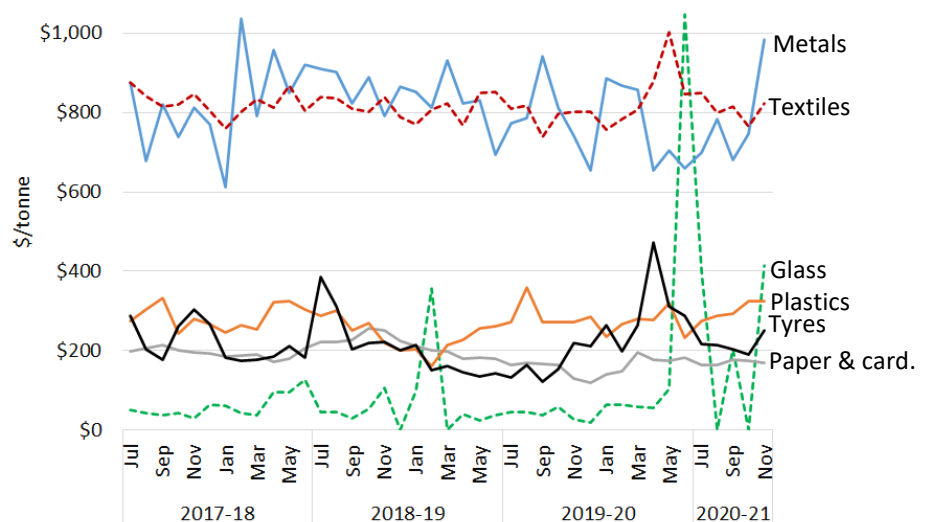
Figure 3 presents monthly trends in the average reported value per tonne of key waste exports from July 2017 to November 2020. Reported values for:

- glass exports have averaged about \$50/t but in recent months have been highly unstable as quantities fell<sup>8</sup>
- metals declined from July 2018 but rose sharply in November 2020
- paper and cardboard have been more stable but on a gently declining trend
- plastics fell during 2018 due to China’s restrictions, but recovered as exports of low-grade mixed materials fell while higher value streams remained consistent

**Figure 2 Monthly exports of waste and recovered materials from Australia by material type, July 2017 to November 2020**



**Figure 3 Comparison of unit values by material (in \$/t), July 2017 to November 2020**



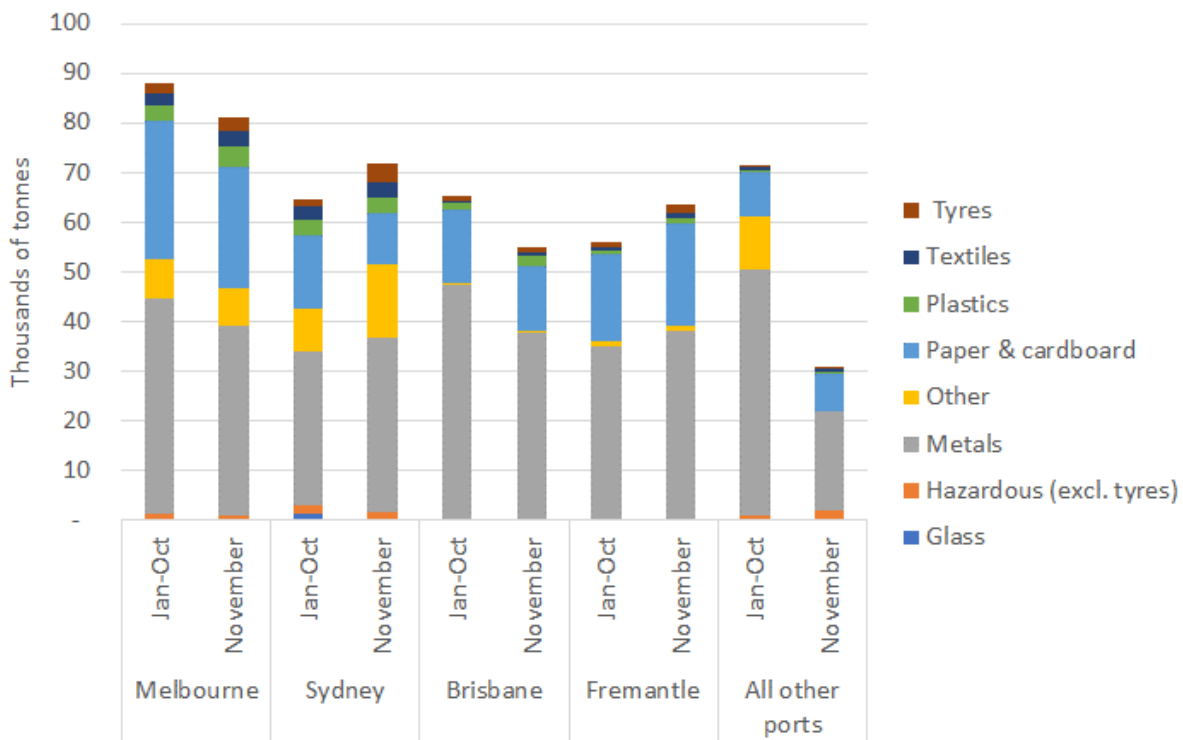
<sup>8</sup> The price spikes may be due to exports of high-value processed product (e.g. reflective paint additive, specialist filtration media).

- textiles have been consistently between \$740 and \$1,000/t but towards the low end of that range in 2020-21.
- tyres dipped in 2019 then recovered to their average over the whole data period, with higher unit prices apparently coinciding with low tonnages.

### Port of loading and state of origin

Since January 2020, about 80% of Australia’s waste and recovered materials have been exported from four of Australia’s 22 ports: Melbourne (26%); Sydney (19%); Brisbane (19%); and Fremantle (17%). Figure 4 shows the average monthly tonnes from January<sup>9</sup> to October and the November tonnes by material group for each of the top four ports, and all other ports combined. Exports by material were fairly evenly spread across the four main ports and their November tonnages were similar to the average. November exports from ‘all other ports’ were very different to the January-October average due to below-average metal and ‘other’ exports. Exports of ‘other’ waste dropped from over 50,000 tonnes in October to less than a tonne in November. This is not unusual – they have been highly variable throughout the analysis period.

Figure 4 Monthly exports by material from port of loading – latest month compared with average



Most waste and recovered materials originating in a jurisdiction are exported from a port in that jurisdiction, but Tasmania exports most of its waste via Melbourne and it is understood that materials from the Australian Capital Territory are exported through Sydney.

### Australian waste export ban

A March 2020 meeting of the then Council of Australian Governments agreed to a timetable for implementing bans on exporting waste glass, paper, plastics, and tyres not processed into a value-added material. The relevant materials, dates and main export codes are shown in Table 3.

In November 2020, about 97,000 tonnes of waste and recovered materials were exported within the codes listed above, down from 103,000 tonnes in October. This represents about 32% of the total quantity of waste and recovered materials exported for the month, and 35% of all exports within the ‘core waste + ash’ current scope of the *National Waste Report 2020*.

<sup>9</sup> Earlier data were unavailable.



**Table 3** Material types facing export bans

Material	Ban date	AHECC <sup>10</sup> code	AHECC description	Nov 20 exports in this code (rounded tonnes)	Estimated % of tonnes to be banned <sup>11</sup>
Glass	Jan 2021	70010000	Cullet and other waste and scrap of glass; glass in the mass	60	Ban effected from 1/1/21
Paper and cardboard	Jul 2024	47071000	Recovered (waste and scrap), unbleached, kraft paper or paperboard or corrugated paper or paperboard	44,000	47% <sup>12</sup>
		47072000	Recovered (waste and scrap) paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass	180	
		47073000	Recovered (waste and scrap) paper or paperboard, made mainly of mechanical pulp (e.g. newspapers, journals)	520	
		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; or made mainly of mechanical pulp)	32,000	
Plastics	Jul 2022	39151000	Waste, parings and scrap, of polymers of ethylene	4,200	100% <sup>13</sup>
		39152000	Waste, parings and scrap, of polymers of styrene	80	
		39153000	Waste, parings and scrap, of polymers of vinyl chloride	20	
	Jul 2021	39159092	Waste, parings and scrap, of plastics (excl. those of polymers of ethylene, styrene or vinyl chloride)	6,400	83% <sup>14</sup>
Whole tyres	Dec 2021	40040000	Waste, parings and scrap of rubber (excl. of hard rubber) and powders and granules obtained therefrom	7,400	44% <sup>7</sup>
		40122000	Used pneumatic rubber tyres, whether or not subject to recutting or regrooving	2,200	100% <sup>7</sup>
		40129000	Solid or cushion rubber tyres, rubber tyre treads (incl. interchangeable tyre treads) and rubber tyre flaps	360	6% <sup>7</sup>

### Restrictions on waste imports – latest news

The Republic of Korea recently announced its intention to phase out imports of 10 kinds of industrial waste by 2030. It plans to ban waste plastics, mixed wastepaper, and waste fibres in 2022, while coal ash and waste tyres will be banned in 2023<sup>15</sup>. Pakistan published an updated Import Policy Order 2020 on 25 September 2020, which includes a ban on imports of re-treaded tyres and used pneumatic tyres. Some other waste materials are also subject to restrictions but none appear to impact Australia’s export trade with Pakistan. Malaysia’s Ministry of International Trade and Industry has announced a series of measures to protect local steel processing, which is likely to impact ferrous scrap imports<sup>16</sup>. Some of that country’s plastic waste processors have been lobbying for imports to maintain their supplies.

Some legislation came into force in January 2021 but had not been introduced in November 2020. This includes: Thailand’s ban on importing plastic and e-waste; China’s ban on imports of all solid waste; and amendments to the Basel Convention<sup>17</sup> that aim to enhance control of transboundary movements of plastic waste<sup>18</sup>. The new Basel Convention rules stipulate that mixed plastic waste must be ‘almost free from’ contamination, but different countries have interpreted this to mean anywhere between 0.5% and 5%<sup>19</sup>.

<sup>10</sup> Australian Harmonized Export Commodity Classification.

<sup>11</sup> Based on the 2018-19 characteristics of these materials.

<sup>12</sup> Comprises the proportion of material in AHECC code 47079000, but significant miscoding is apparent in the data.

<sup>13</sup> Assumes no material was sorted and processed to the extent that will be required for future export.

<sup>14</sup> Excludes fuels.

<sup>15</sup> Yonhap News Agency (2021) [S. Korea to phase out industrial waste imports](#).

<sup>16</sup> Recycling today (21 January 2021) [Malaysian ferrous scrap export tax looming](#).

<sup>17</sup> Formally known as the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*.

<sup>18</sup> Basel Convention, [Plastic waste amendments](#).

<sup>19</sup> EScrap News (14 January 2021) [Basel plastic rules cause immediate e-plastics strife](#).

No new updates were found on restrictions in Australia’s other major destinations for exported waste and recovered materials.

### Restrictions on waste imports – overview

The current status of import restrictions to Australia’s top 10 waste and recovered materials destinations is summarised in Table 4, while Table 5 provides details of the import restriction policies, their dates and amount of waste potentially impacted by the bans.

Table 4 Summary of import restrictions by material and top 10 country

	Glass	Haz. waste (excl. tyres)	Metals	Paper & cardboard	Plastics	Tyres	Textiles
Indonesia	Restricted	Restricted	Restricted	Restricted	Restricted	Restricted	
India					Restricted	Considering	
Bangladesh							
Vietnam			Restricted	Restricted	Restricted		
China			Restricted	Restricted	Restricted		
Malaysia					Restricted		
Thailand					Restricted		
Taiwan				Restricted	Restricted		
Republic of Korea				Restricted	Restricted	Announced	
Pakistan						Restricted	

#### Key

Restricted	Restrictions are in place
Announced	Restrictions announced but not yet implemented
Considering	Restrictions are under consideration

Table 5 Status of waste import restrictions

Country	Scope of restrictions	Announced & implemented	Associated exports (tonnes)			Impact and uncertainties
			Types	2019-20	Nov 20	
Indonesia	On 27 May 2020 the Indonesian Government published a decree on the implementation of import of non-hazardous and toxic material waste <sup>20</sup> . This limits contamination of imported scrap plastic and paper to 2% and announces the formation of a task force to develop a road map to accelerate the availability of domestic raw materials. This will include a staged reduction of import quotas. On 15 October 2020, they announced exporters will need to complete a registration process, described as cumbersome and lengthy, to continue exporting to Indonesia, to come into force on 18 October, however this was pushed back to January 2021 <sup>21</sup> .	Ann.: Apr-19 Imp.: Nov-19	Plastics, paper and cardboard, metals, glass, hazardous waste, tyres, other.	627,000  (52,000 per month)	57,000	Imports reduced from 61,000 per month in 2018-19 to 52,000 in 2019-20

<sup>20</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](#).

<sup>21</sup> EU-WID Pulp and paper (16 October 2020) [Indonesia postpones introduction of exporter registration to 1 January 2021](#).

Country	Scope of restrictions	Announced & implemented	Associated exports (tonnes) Types	2019-20		Impact and uncertainties
				2019-20	Nov 20	
India	Import of scrap plastics was banned from August 2019 <sup>22</sup> covering areas previously exempt under the 2016 ban such as special economic zones (SEZ) and export-oriented units (EOU) <sup>23</sup> . The ban excludes electrical/electronic assemblies or components that are defective, which can be imported within a year of export. India set a contamination limit of 1% for recovered paper years ago. It now intends to enforce this by randomly inspecting 5 mixed paper bales per container <sup>24</sup> .	Ann.: Mar-19 Imp.: Mar-19 to Aug-19	Plastics	60  (5 per month)	0	Plastics imports reduced from 60 to 5 tonnes per month from 2018-19 to 2019-20. No plastics imports so far in 2020-21
Bangladesh	No apparent waste import restrictions. Since July 2019, received mainly metals, hazardous wastes and a small amount of glass from Australia.				0	None
Vietnam	On 24 September 2020 Vietnam published a new document <sup>25</sup> , 'Promulgation of the list of waste permitted for import as production materials', overriding previous relevant regulations. Unsorted scrap paper imports and granulated slag from the manufacture of iron or steel are scheduled to be banned by the end of 2021. This builds on the 2018 announcement of tighter controls over imports of plastic, paper and metals. Accepted only if importers prove their shipment meets specified environmental standards and there is capacity to process the materials. Under new national standard QCVN 32: 2019/BTNMT, import of e-waste plastics (e.g. cases of TVs and computers) would be forbidden <sup>26</sup> . Scrap metal waste needs to be 99% metal to be allowed in <sup>27</sup> .	Ann. in Sep-20. Mixed metal waste restricted from Oct 2018.	Plastic, paper, metals	420,300  (35,000 per month)	39,000	Imports reduced from 61,000 to 35,000 tonnes per month between 2018-19 and 2019-20.
Malaysia	During 2019, Malaysia cracked down on illegal plastics reprocessors, and customs officials began refusing waste imports unless they were from companies with approved permits <sup>28</sup> .	Jul-18.	Plastic, metals	49,000  (4,100 per month)	3,600	No impact apparent.
China	China initiated waste import restrictions known as 'National sword policy' in April 2018 <sup>29</sup> .	Ann.: Jul & Nov-17, Apr-18, Jul-19, Dec-19, Jan-20	All solid wastes	328,000  (27,300 per month)	14,000	Imports gradually reduced from over 100,000 tonnes per month in 2016-17 to 27,000 in 2018-19.

<sup>22</sup> Business Today, (24 June 2019) [India bans import of plastic waste from August this year to curb pollution.](#)

<sup>23</sup> Ministry of Environment, Forest and Climate Change (2019) [Amendment in Hazardous Waste \(Management & Transboundary Movement Rules, 2016\).](#)

<sup>24</sup> Waste Dive, (15 January 2020), [India to enforce 1% contamination rate on paper imports, conduct random inspections.](#)

<sup>25</sup> Prime Minister of Vietnam (24 September 2020) [Promulgation of the list of waste permitted for import as production materials.](#) Unofficial translation.

<sup>26</sup> Ministry of Natural Resources and Environment of the Socialist Republic of Vietnam (2018) [Vietnam to ban imports of plastic from used electronics.](#)

<sup>27</sup> S&P Global Platts (2019) [Vietnam's Jan scrap imports plunge amid stricter government rules.](#)

<sup>28</sup> The Sun Daily (2<sup>nd</sup> February 2021) [Waste not want not: Malaysia moves to become a leader in tackling plastic waste.](#)

<sup>29</sup> Ministry of Commerce, State Development & Reform Commission (incl. former State Development Planning Commission), General Administration of Customs (2018) *Announcement No. 6 [2018] of the Ministry of Ecology and Environment, the Ministry of Commerce, the National Development and Reform Commission and the General Administration of Customs.*



Country	Scope of restrictions	Announced & implemented	Associated exports (tonnes)		Impact and uncertainties	
			Types	2019-20 Nov 20		
	Restrictions have continued to tighten and from 1 January 2021 a ban on the import of all solid waste is set to be implemented <sup>30</sup> . The definition of solid waste may differ between Australia and China and certain waste-derived resources may continue to be imported as feedstocks.	Imp.: Jan 1, 2021				
Thailand	Thailand has announced its intention to implement a ban on the import of all plastic wastes by 2022 <sup>31</sup> . However, this is still under debate as to whether locally generated plastic waste will satisfy feedstock requirements of the 157 plastic recycling facilities. A ban on 428 types of electronic waste has also been announced <sup>32</sup> .	Ann. Aug-18, plastic imp. Aug-18, e-waste <2 yrs.	Plastic	9,500 (800 per month)	270	Plastics imports reduced from 900 to 800 tonnes per month between 2018-19 and 2019-20
Taiwan	Import of plastic waste is banned. Exceptions are made to licensed local firms that import plastic waste originating from their own overseas production processes or are a single material, but not from original production processes <sup>33</sup> . Paper imports restricted to only deinked paper, kraft paper, corrugated paper or cardboard that is not bleached. Import of waste newspapers and magazines banned.	Ann.: Aug-18 Imp.: Oct-18	Plastic, paper	14,200 (1,200 per month)	320	Imports reduced from 1,500 to 1,200 per month between 2018-19 and 2019-20.
Korea, Republic of	On 6 January 2021, Ministry of Environment announced bans or restriction on their top 10 waste import materials <sup>34</sup> . Total imports to be reduced 35% by 2022 and 65% by 2025. Plastic, mixed waste paper and waste fibre bans will commence in 2022, while coal ash and tyre bans will commence in 2023. Corrugated cardboard, dust and sludge will be subject to restrictions in 2023 <sup>35</sup> . Previously announced (on 30 June 2020) a ban on imports of PET, PE, PP and PS with immediate effect. <sup>36</sup>	Ann.: Feb-20	Paper and cardboard Plastic	13,000 (1,100 per month)	660	Imports of both products have decreased significantly over 2020
Pakistan	On 25 September 2020 the Pakistan Government Ministry of Commerce published Import Policy Order 2020, which came into force immediately <sup>37</sup> . This bans the import of re-treaded tyres and used pneumatic tyres.	Sep-20	Tyres	0	0	No impact apparent.

<sup>30</sup> Ministry of Ecology and Environment, People's Republic of China (25 November 2020) [MEE Announcement No. 53 2020](#) (unofficial translation by Institute of Scrap Recycling Industries).

<sup>31</sup> REB market intelligence (25 January 2021) [Thailand considering plastic import ban from 1st January 2022.](#)

<sup>32</sup> Saengmanee (2020) [The year nature bounced back.](#)

<sup>33</sup> Taipei Times (2018) [New waste plastic, paper import rules to take effect.](#)

<sup>34</sup> Business Korea (7 January 2021) [Waste import ban roadmaps to come out soon.](#)

<sup>35</sup> Inquirer.net (10 January 2021) [S. Korea to phase out industrial waste imports.](#)

<sup>36</sup> The Korea Times (2020) [Plastic waste imports banned in Korea amid mounting local trash.](#)

<sup>37</sup> Pakistan Government Ministry of Commerce (2020) [Import Policy Order 2020.](#)