

Exports of Australian waste and recovered materials in May 2021

16 August 2021, Sally Donovan and Joe Pickin

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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 materials¹. The original data is provided by the Australian Bureau of Statistics (ABS), and comprises monthly data and updates to previously reported data^{2,3,4}. The ABS data is transformed to account for issues such as trade codes covering a mixture of wastes and non-wastes, and to make it consistent with national waste data methods. On a tonnage basis nearly all these exports are materials recovered from waste streams for recycling⁵ or energy recovery, but a small portion is hazardous waste sent for treatment. Monthly data is highly variable, and trends are best observed through the annual reports produced in this series.

Summary

In May 2021, Australia exported about 510,000 tonnes of waste and recovered materials with a reported value of \$420 million⁶. This represents an increase of 49% in tonnage and 33% in value compared to the previous month. The exports included 453,000 tonnes (89%) within the scope of national waste reporting ('core waste plus ash'). This is the highest monthly export tonnage in the analysed period from July 2017. The increase was mainly a surge in metal exports, which also reached its highest level at 306,000 tonnes.

About 132,000 tonnes were exported in May in codes that could be affected by Australia's export bans. This is 26% of the total exports of waste and recovered materials.

Comparison by destination

The top 10 recipients of Australian waste and recovered materials between July 2019 and May 2021, in order, were Indonesia, India, Vietnam, Bangladesh, Malaysia, China (including Hong Kong and Macau), Thailand, Taiwan, South Korea and Pakistan. In May 2021, 87% by weight of Australia's exported waste and recovered materials was sent to these destinations.

Table 1 (overleaf) compares exports of waste and recovered materials to the top 10 destinations in April and May 2021 and includes each recipient's 2019-20 monthly average. Exports to Vietnam, Taiwan and South Korea fell slightly, while all other destinations increased. The largest total increase was to Indonesia, which received over 120,000 tonnes in May, the highest monthly total to any country over the 47-month analysis period. This consisted of a large increase in scrap metals on top of consistently high levels of scrap paper and cardboard received by Indonesia since November 2020. The biggest percentage increase was to Pakistan, which has periodically received similar large shipments of scrap metals.

Scrap metals were the sole or main export to Bangladesh (100%), Taiwan (98%), Pakistan (94%) and China (89%). Indonesia received mainly scrap paper and cardboard (51%) and metals (43%), while Thailand accepted 83% metals and 16% paper and cardboard. Vietnam's receipts were mainly metals (80%) and agricultural organics (13%). Exports to India were a mix of scrap metals (51%), paper and cardboard (32%) and tyres (16%). Malaysia received a mix of paper and cardboard (38%), metals (33%) and plastics (19%). South Korea received metals (63%), agricultural organics (16%) and hazardous wastes (12%).

¹ 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.

² 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.

³ 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.

⁴ The data presented is gross weight, including packaging. This value is used for consistency because the quantities of exported materials are presented in varied units, including numbers of items.

⁵ 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.

⁶ Dollar values refer to Australian dollars. Historical values are inflated based on the annualised consumer price index.

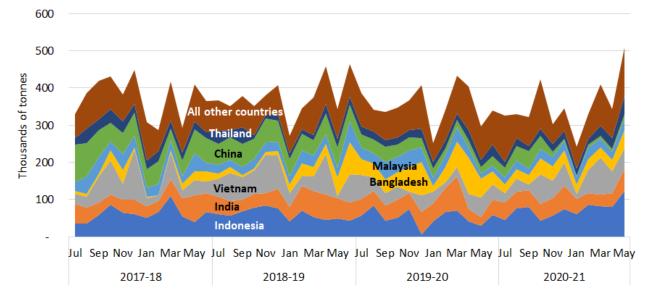


Table 1 Comparison of month-to-month exports of waste and recovered materials by destination

Export destination (ranked by tonnes since July 2019)		May-2	21	Apr-21	21 2019-20 May-21 Apr-21 monthly		Apr-21		2019-20 monthly	
			% of		%	avg			%	avg
		tonnes	total	tonnes	change	tonnes	\$ mil	\$ mil	change	\$ mil
1	Indonesia	122,000	24%	80,000	52%	52,000	\$48.6	\$27.5	76%	\$16.1
2	India	59,000	12%	37,000	62%	48,000	\$44.5	\$24.5	82%	\$27.4
3	Vietnam	56,000	11%	59,000	-5%	35,000	\$28.4	\$24.9	14%	\$14.3
4	Bangladesh	49,000	10%	31,000	58%	52,000	\$24.9	\$15.3	62%	\$20.6
5	Malaysia	32,000	6%	22,000	41%	32,000	\$27.8	\$17.8	57%	\$13.2
6	China	12,000	2%	7,800	57%	27,000	\$45.7	\$34.3	33%	\$28.3
7	Thailand	48,000	9%	28,000	72%	22,000	\$31.1	\$15.3	104%	\$7.62
8	Taiwan	27,000	5%	28,000	-4%	17,000	\$11.2	\$15.2	-27%	\$9.32
9	South Korea	11,000	2%	13,000	-14%	15,000	\$25.1	\$41.4	-39%	\$39.4
10	Pakistan	28,000	5%	5,900	371%	9,100	\$6.17	\$4.39	40%	\$5.01
Top 10 total		444,000	87%	312,000	42%	309,000	\$293.5	\$220.6	33%	\$181.3
Mon	thly total	510,000	-	343,000	49%	354,000	\$420.1	\$316.0	33%	\$237.7

Figure 1 presents the trend in tonnes of exports of waste and recovered materials from Australia by destination between July 2017 and May 2021. Monthly exports are volatile and no overall trend is evident over the 47-month timeframe. In recent months, exports of waste and recovered materials to Indonesia, Vietnam and Malaysia appear to be increasing. Exports to China plunged from over 100,000 tonnes in July 2017 to less than 4,000 tonnes in January 2021. They have increased slightly since then, which may be due to exporters understanding and achieving compliance with China's new import regulations.

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



The reported value of exports for May 2021 was \$420 million, up from \$316 million in April and significantly exceeding the monthly averages in 2019-20 (\$238 million), 2018-19 (\$260 million) and 2017-18 (\$237 million). Compared with the monthly averages, the increased value is more substantial than the increased tonnes, reflecting an increasing value per tonne of metals, plastics, and paper and cardboard. There has been strong growth in the scrap value of metals and sorted plastics, in particular, over the first five months of 2021 (see Figure 3).



Comparison by material

Table 2 compares May 2021 export tonnages and values with April and with the 2019-20 monthly average, by material type. Around 89% of May exports fall within the 'core waste plus ash' scope of national waste reporting⁷.

Table 2 Comparison of export tonnage and value by material

	May-21		21 Apr-21		2019-20 monthly avg	M	May-21			2019-20 monthly avg
	tonnes	% of total	tonnes	% change_	tonnes	\$ mil	% of total	\$ mil_	% change	\$ mil
Glass	20	0%	60	-72%	2,200	\$0.01	<1%	\$0.03	-66%	\$0.11
Hazardous (excl. tyres)	3,100	1%	3,900	-20%	3,500	\$32.2	8%	\$42.3	-24%	\$37.1
Metals	306,000	60%	190,000	61%	212,000	\$318	76%	\$222	43%	\$163
Paper & cardboard	106,000	21%	91,000	17%	88,000	\$26.7	6%	\$20.8	28%	\$14.2
Plastics	13,000	3%	10,000	25%	9,400	\$4.64	1%	\$3.75	24%	\$2.59
Textiles	10,000	2%	8,000	29%	7,800	\$8.14	2%	\$6.64	23%	\$6.30
Tyres	13,000	3%	8,000	65%	7,100	\$1.84	<1%	\$1.63	13%	\$1.47
Other	58,000	11%	31,000	87%	24,000	\$28.7	7%	\$18.4	56%	\$12.9
Total	510,000	-	343,000	49%	354,000	\$420	-	\$316	33%	\$238

Comparison with the previous month -

- Unprocessed glass waste exports have been banned since January 2021. In May, export of a small
 amount of unprocessed glass waste was reported, but review of the export declaration reveals it was
 actually filtration material that should have been coded as non-furnace-ready fines and/or cullet.
- Exports of **hazardous waste** (excluding tyres) dropped from 3,900 to 3,100 tonnes, with a corresponding fall in value. These exports were mainly lead waste and scrap (94%).
- Monthly exports of scrap **metals** were the highest over the analysis period at 306,000 tonnes. This is linked to high or even record prices affecting most types of scrap and non-scrap metals⁸, variously associated with expanding Chinese production⁹ and the pandemic¹⁰. Ferrous scrap is currently trading at the highest prices for at least two decades, pulling through more marginal material and drawing down stockpiles. Scrap metal exports were widely distributed, including to Indonesia (17%), Bangladesh (16%), Vietnam (15%), Thailand (13%) and India (10%).
- Exports of scrap paper and cardboard rose from 91,000 to 106,000 tonnes between April and May 2021. The main recipients were Indonesia (59%), India (18%) and Malaysia (11%). Tonnages were split between unbleached kraft (46%) and unsorted scrap (52%). The rise in value was greater than the rise in tonnes as the value per tonne reached \$251, the highest since October 2018.
- Exports of scrap **plastics** were 25% higher than in April. The major recipients were Malaysia (46%) and Indonesia (13%). These exports comprised mixed and 'other' plastics (60%) and polyethylenes (39%). The reported value per tonne remained steady at \$361. Industry reports values for clean PET and HDPE bales at their highest level for five years, and this is likely to present in export data over the next few months.
- Exports of waste **textiles** increased from 8,000 to 10,000 tonnes in May 2021. The main receiving countries were the United Arab Emirates (63%), Pakistan (12%) and Malaysia (10%). Worn clothing and other worn textile articles accounted for more than 99% of textile waste exports.
- Exports of waste **tyres** rose from 8,000 to 13,000 tonnes between April and May 2021¹¹. The main recipients were India (71%) and Malaysia (13%). The reported value per tonne fell from \$203 to \$139 per tonne, resulting in a less significant increase in total value.
- Exports of **other** waste surged from 31,000 to 58,000 tonnes, mainly due to a large shipment of sawdust and wood waste. Exports were split between agricultural organics (54%) and timber (44%).

⁷ See the *National Waste Report 2020* on the Department of Agriculture, Water and the Environment website.

⁸ Australian Bureau of Statistics (2021) <u>International merchandise trade, preliminary, Australia.</u>

⁹ ABC News (2021) Record iron ore prices boost Australia's economy, but will the China trade war end the boom?

¹⁰ Australian Mining (2021) Australian copper production declines in 2020.

¹¹ Tyre export quantities in the ABS data are generally lower than reported through industry sources. Significant miscoding is likely.



Comparison with the 2019-20 monthly average – May 2021 export tonnages were 44% higher than last year's monthly average, and the value was 77% higher. The larger difference in value is mainly attributable to higher reported values per tonne of metals and paper and cardboard. Tonnages and values were greater than the 2019-20 average for all waste types except glass and hazardous wastes.

Trends in tonnage and unit value

Figure 2 presents the monthly trend in exports of waste from Australia in tonnes by material type between July 2017 and May 2021. Scrap metal exports continue to increase and have reached a new high. After declining for much of the analysis period, exports of scrap paper and cardboard recovered in 2020-21. Scrap tyre quantities fell steadily over 2019-20 to reach their lowest level in April but then increased¹¹. Exports of recovered plastics peaked in early 2019, dropped to a low in August of that year, but grew during 2020-21. Textile exports have remained relatively level apart from a drop in mid-2020.

Figure 3 presents monthly trends in the average reported value per tonne of key waste exports from July 2017 to May 2021.
Reported values for:

- metals declined from February 2018 to June 2020 but have risen strongly since
- paper and cardboard had been on a gently declining trend but have risen steadily since December 2020
- plastics fell during 2018 due to China's restrictions, but recovered as exports of lowgrade mixed materials fell while higher value streams remained consistent
- textiles were consistently between \$740 and \$1,000/t but towards the low end of that range in 2020-21

Figure 2 Monthly exports of waste and recovered materials from Australia by material type, July 2017 to May 2021

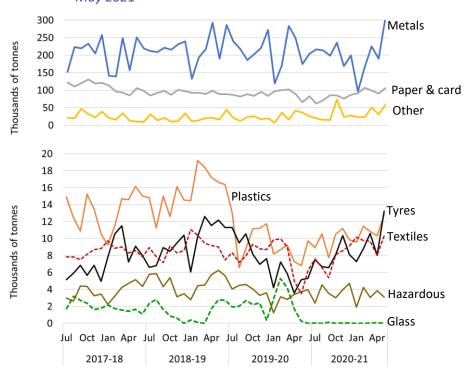
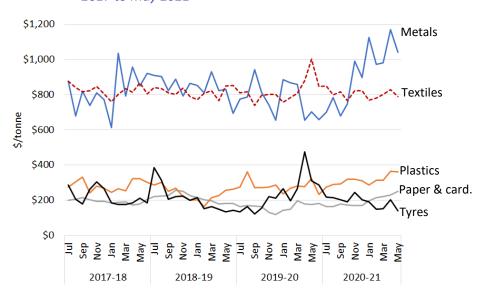


Figure 3 Comparison of unit values by material (in \$/t), July 2017 to May 2021



- tyres dipped in 2019, peaked in April 2020 and have been declining since
- glass are not shown as very little of this material is now exported.



Port of loading and state of origin

Between January 2020¹² and May 2021 about 81% of Australia's waste and recovered materials were exported from four ports: Melbourne (25%); Sydney (20%); Brisbane (19%); and Fremantle (17%). Figure 4 compares the average monthly tonnes exported between January 2020 and April 2021 with the May 2021 tonnes, by material group, from each of the top four ports and from all other ports combined. Exports from all ports exceeded the average this month. For the four main ports, Melbourne, Sydney, Brisbane and Fremantle, this was driven by the large increase in metal exports. Exports from 'all other ports' exceeded the average due to wastes from 'other' category. This was mainly due to a large shipment of sawdust and wood waste from Bundaberg to Japan, which occurs periodically.

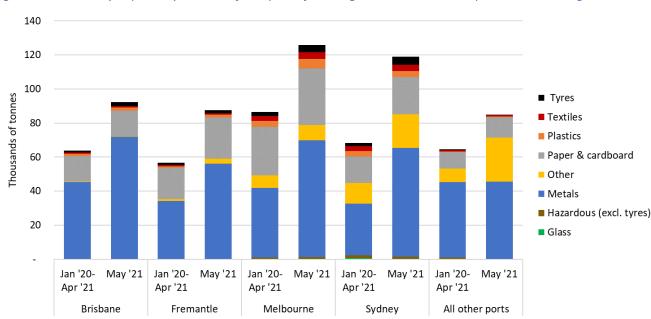


Figure 4 Monthly exports by material from port of loading – latest month compared with average

Most waste and recovered materials are exported from a port in the jurisdiction where they are generated, but Tasmania exported less than half of its waste from Launceston while the rest went via Melbourne (46%) and Sydney (12%). It is understood that exported materials generated in the Australian Capital Territory are typically exported from 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 May 2021, about 132,000 tonnes of waste and recovered materials were exported within the codes listed, up from 109,000 tonnes in April. This represents about 26% of the total quantity of waste and recovered materials exported for the month, and 29% of all exports within the 'core waste + ash' scope of national waste reporting.

The second material stream to face a ban was mixed polymer scrap plastics, which came into force on 1 July 2021. From this date, the four pre-existing AHECC codes for scrap plastic were replaced with nine new codes, with more specific definitions. Government and industry are dealing with the challenge of ensuring that sufficient local sorting capacity is available for mixed rigid packaging plastics from kerbside collections, which have previously been exported. An estimated 6,400 tonnes of this material were exported in May 2021.

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¹² Earlier data were unavailable.



Table 3 Material types facing export bans

Tuble 5 IVI	accirai ty	pes jucing e	May 21 ex	ports in	Estimated %	
				nis code	of tonnes to	
Material	date	code	AHECC description (rounded	tonnes)	be banned ¹⁴	
Glass (unprocessed)	Jan 2021	70010091 ¹⁵	Glass in the mass, cullet and other waste and scrap of glass, not elsewhere specified	20 ¹⁶	Ban in effect	
		47071000	Recovered (waste and scrap), unbleached, kraft paper or paperboard or corrugated paper or paperboard	49,000		
Paper and	47072000 made mainly of bleached cher	Recovered (waste and scrap) paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass				
cardboard	Jul 2024	47073000	Recovered (waste and scrap) paper or paperboard, made mainly of mechanical pulp (e.g. newspapers, journals)	2,100	47% ¹⁷	
		47079000	Waste and scrap paper or paperboard (incl. unsorted waste & scrap)	55,000		
	Jul 2022	39151000	Waste, parings and scrap, of polymers of ethylene	5,100		
		39152000	Waste, parings and scrap, of polymers of styrene	90	100% 18	
Plastics		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)		83% 19	
		40040000	Waste, parings and scrap of rubber (excl. of hard rubber) and powders and granules obtained therefrom	11,000	44% 11	
Whole tyres	Dec 2021 Used pneumatic rubber tyres, whether or not subject to recutting or regrooving		1,700	100% ¹¹		
		40129000	Solid or cushion rubber tyres, rubber tyre treads (incl. interchangeable tyre treads) and rubber tyre flaps	1,100	6% ¹¹	

Restrictions on waste imports – latest news

Indonesia's head of the Centre for Green Industry, Standardization and Industrial Service Policy has announced steps to be taken to boost recycling and move towards a circular economy²⁰. The announcement noted the significance of the recycling industry to Indonesia's economy and that imports would remain necessary to provide sufficient feedstocks. Thailand's impending ban on plastic waste imports appears to have been pushed back²¹.

In Malaysia, negotiations between the metal industry and government over the proposed restrictions on scrap metal continue²². The draft restrictions cover minimum metal content, contamination limits, as well as pre- and post-shipment inspections. An industry representative claimed these exceed the Basel Convention requirements on hazardous waste. Exporters are concerned that the restrictions could set a precedent leading to global restrictions on scrap metal trade.

China's ban on solid waste imports came into force in January. New definitions of certain reprocessed or scrap materials have been settled²³, including ferrous and non-ferrous metals and recycled pulp. Imports of high-quality reprocessed materials are noted as important to China's zero carbon goals.

¹³ Australian Harmonized Export Commodity Classification.

¹⁴ Based on the 2018-19 characteristics of these materials.

¹⁵ Previously 700100000.

¹⁶ Review of the export declaration reveals this was actually filtration material that should have been coded as 70011002 non-furnace-ready fines and/or cullet.

¹⁷ Comprises the proportion of material in AHECC code 47079000, but significant miscoding is apparent in the data.

¹⁸ Assumes no material was sorted and processed to the extent that will be required for future export.

¹⁹ Excludes fuels.

²⁰ AntaraNews (2021) <u>Recycling industry processing just one-third of nation's waste: govt.</u>

²¹ Ecological Alert and Recovery – Thailand (2021) NGOs call for hazardous waste exports and 'dirty recycling' to end worldwide.

²² Recycling International (2021) <u>Growing fears of global recycling infrastructure 'collapse'</u>.

²³ Global Recycling (2021) China: on the road to 'zero-carbon'.



Restrictions on waste import – overview

The current status of import restrictions in 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 destinations

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

Tubic 5	Status of waste import restrictions							
		Announced &	Associated 6	Associated exports (tonnes)				
Destination	Scope of restrictions	implemented	Types	2019-20	May 21	Impact and uncertainties		
Indonesia	On 27 May 2020 the Indonesian Government published a decree on the implementation of import of non-hazardous and toxic material waste ²⁴ . This limits contamination of imported scrap plastics and paper to 2%. The decree announced the formation of a task force to develop a road map accelerating the availability of domestic raw materials. However, recently 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 ²⁰ .	Ann.: Apr-19 Imp.: Nov-19	Plastics, Paper and cardboard, metals, glass, hazardous waste, tyres, other.	627,000 (52,000 per month)	122,000	Imports reduced from 61,000 per month in 2018-19 to 52,000 in 2019-20.		
India	In 2016 India banned the import of scrap plastics with an exemption for special economic zones (SEZ) and export-oriented units (EOU). In August 2019 ²⁵ the ban was expanded to cover these zones, but on 27 January 2021 this expansion was revoked	Ann.: Mar-19 Imp.: Mar-19 to Aug-19	Plastics	(5 per month)	140	Plastics imports reduced from 60 to 5 tonnes per month from 2018-19 to 2019-20.		

²⁴ Minister of Trade, Minister of Environment and Forestry, Minister of Trade Industry and Head of State Policy, Republic of Indonesia (May 2020), <u>Implementation of import of non hazardous and toxic material waste as raw material industry.</u>

²⁵ Business Today, (24 June 2019) <u>India bans import of plastic waste from August this year to curb pollution.</u>



		Announced &	Associated exports (tonnes)				
Destination	Scope of restrictions	implemented	Types	2019-20	May 21	Impact and uncertainties	
	meaning waste plastics can again be imported to these areas. The ban excludes electrical/electronic assemblies or components that are defective which can be imported within a year of export. India also has a contamination limit of 1% for recovered paper, which it enforces by randomly inspecting five mixed paper bales per container ²⁶ . India has proposed a new policy seeking to increase local scrap metal processing and reducing reliance on imports ²⁷ .	Lifted: Jan-21					
Bangladesh	The Bangladesh Ministry of Commerce Import Policy Order 2015-2018 includes details of waste import regulations ²⁸ . Metals and glass are allowed for bona fide industrial units, paper and cardboard is unrestricted and textiles are allowed with some restrictions. The regulations also mention exemptions for other waste types that would fall under the waste groups hazardous and 'other'.	Imp: Feb-16	Plastics		0	None.	
Vietnam	On 24 September 2020 Vietnam published ²⁹ '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 are to be banned by 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 ³⁰ . Under new national standard QCVN 32: 2019/BTNMT, import of e-waste plastics (e.g. TVs and computers) would be forbidden ³¹ . Scrap metal waste needs to be 99% metal to be allowed in ³² .	Ann. in Sep-20. Mixed metal waste restricted from Oct 2018.	Plastic, paper, metals	420,000 (35,000 per month)	48,000	Imports reduced from 61,000 to 35,000 tonnes per month between 2018-19 and 2019-20.	
Malaysia	Malaysia has been cracking down on plastic waste imports this year with renewed support from the Basel Convention amendment on plastics waste, which came into force in January 2021. ³³ . The Basel Action Network encouraged the Malaysian government to similarly inspect all shipments of waste plastics entering the country to ensure continued compliance ³⁴ . Proposed import restrictions on metals are still under negotiation ³⁵ .	Jul-18.	Plastics, metals	49,000 (4,100 per month)	6,000	No impact apparent.	

²⁶ Waste Dive, (15 January 2020), <u>India to enforce 1% contamination rate on paper imports, conduct random inspections.</u>

²⁷ Bone C. (2021) *India mulls over self-sufficient future without imported scrap.*

²⁸ Ministry of Commerce, Government of the People's Republic of Bangladesh (2016) *Import Policy Order 2015-2018*.

²⁹ Prime Minister of Vietnam (24 September 2020) <u>Promulgation of the list of waste permitted for import as production materials.</u> Unofficial translation.

 $^{^{30}\, \}text{Vietnam - National Technical Regulations on Wastes (18 \, November \, 2019),} \, \underline{\text{$https://www.cciclondon.com/portal/article/index/cat} \, id/35/id/286.html}.$

³¹ Ministry of Natural Resources and Environment of the Socialist Republic of Vietnam (2018) <u>Vietnam to ban imports of plastic from used electronics</u>.

³² S&P Global Platts (2019) <u>Vietnam's Jan scrap imports plunge amid stricter government rules.</u>

³³ Reuters (2021) Malaysia permits import of US plastic waste shipment after it passes new UN treaty test https://www.reuters.com/article/us-malaysia-environment-plastic-idUSKBN2BG0ZL.

³⁴ The Sun Daily (2 February 2021) <u>Waste not want not: Malaysia moves to become a leader in tackling plastic waste.</u>

³⁵ Majumder R (June 2021) *Malaysia's import restrictions on metal scrap may lose out recycling investments.*



		Announced &	Associated (exports (tonnes		
Destination	Scope of restrictions	implemented	Types	2019-20	May 21	Impact and uncertainties
China	China banned the import of all solid waste from January 2021 ³⁶ . Certain high quality reprocessed materials are not considered waste under the legislation's definitions, including scrap metals and paper grade recycled pulp.	Ann.: Apr-20 Imp.: Jan 1, 2021	All solid wastes	328,000 (27,000 per month)	12,000	Imports fell from over 100,000 tonnes per month in 2016-17 to 27,000 in 2019-20.
Thailand	Thailand had announced its intention to implement a ban on the import of all waste plastics by 2022 ³⁷ . However, it appears this date has been pushed back by several years ²¹ . A ban on 428 types of electronic waste has also been announced ³⁸ .	Ann. Aug-18, plastics imp. Aug- 18, e-waste <2 yrs.	Plastics	9,500 (800 per month)	90	Plastics imports reduced from 900 to 800 tonnes per month between 2018-19 and 2019-20
Taiwan	Import of waste plastics is banned. Exceptions are made 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 ³⁹ . Paper imports are restricted to 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	Plastics, paper	14,200 (1,200 per month)	560	Imports reduced from 1,500 to 1,200 per month between 2018-19 and 2019-20.
South Korea	On 6 January 2021, the Ministry of Environment announced bans or restrictions on their top 10 waste import materials ⁴⁰ . Total imports are to reduce by 35% by 2022 and 65% by 2025. Bans on plastics, mixed waste paper and waste fibre will commence in 2022, and on coal ash and tyres in 2023. Corrugated cardboard, dust and sludge will be subject to restrictions in 2023 ⁴¹ . A ban on imports of PET, PE, PP and PS came into force at the end of June 2020 ⁴² .	Ann.: Feb-20	Paper and cardboard Plastics	13,000 (1,100 per month)	300	Imports of both products have decreased significantly over 2020.
Pakistan	On 25 September 2020 the Pakistan Government Ministry of Commerce banned the import of re-treaded tyres and used pneumatic tyres ⁴³ .	Sep-20	Tyres		0	No impact apparent.

³⁶ 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.

³⁷ REB market intelligence (25 January 2021) <u>Thailand considering plastic import ban from 1st January 2022.</u>

³⁸ Saengmanee (2020) *The year nature bounced back.*

³⁹ Taipei Times (2018) New waste plastic, paper import rules to take effect.

⁴⁰ Business Korea (7 January 2021) <u>Waste import ban roadmaps to come out soon.</u>

⁴¹ Inquirer.net (10 January 2021) <u>S. Korea to phase out industrial waste imports.</u>

⁴² The Korea Times (2020) *Plastic waste imports banned in Korea amid mounting local trash.*

⁴³ Pakistan Government Ministry of Commerce (2020) *Import Policy Order 2020*.