



# Unwaste

## TRENDSPOTTING ALERT



This publication is produced by UNODC and the UNITAR SCYCLE Programme, under the Unwaste project, with financial support of the European Union. Its contents are the sole responsibility of the Unwaste project and do not necessarily reflect the views of the European Union nor the United Nations Secretariat.

### Bulletin No. 3 - January 2023

This edition of the bulletin focuses on plastic waste flows between the EU and the ASEAN region.



## PERSPECTIVES

Plastic pollution is a global issue with severe environmental, health, social and economic consequences. According to the known data, of the 8 billion tons of plastic waste generated worldwide prior to 2017, less than 10% was recycled, 12% was incinerated, and the rest was landfilled or lost in the environment.<sup>[1]</sup> In 2019, the world's annual use of plastic reached 460 million metric tons (Mt)<sup>[2]</sup>, with two-thirds of the consumption concentrated in China and (OECD) countries. The plastic waste generated in 2019 amounted to 353 Mt, with OECD countries generating almost half of this quantity.<sup>[3]</sup> Sometimes, plastic waste is shipped thousands of kilometres for recycling, but evidence shows that part of it is burned or dumped in the open.<sup>[4]</sup>

According to the OECD, the annual reported export weight of plastic scrap and waste fell by roughly 46% between 2017 and 2020, after the China ban, from around 12.3 Mt in 2017 to 6.4 Mt in 2020. A notable decrease of approximately 96% occurred in the exports destined to China and Hong Kong (China), from 6.6 Mt in 2017 to less than 0.25 Mt in 2020 <sup>[5]</sup>.

Megatonne, abbreviated as Mt, is a metric unit equivalent to 1 million tonnes, or 1 billion kilograms.

The 10 top plastic waste exporters from 2017 to 2021 (all years combined) in order of volume were the United States, Germany, Japan, the Netherlands, Hong Kong (China), France, the United Kingdom, Mexico, Belgium and Thailand <sup>[6]</sup>. For the same period, the main importers were, in order of volume, China, the United States, Hong Kong (China), the Netherlands, Germany, Malaysia, Taiwan (China), Viet Nam, Turkey and Italy.

The European Union is one of the top exporters of (plastic) waste globally. Before the China ban in 2018, about half of the plastic waste collected in the EU was sent abroad, of which more than 85% was exported to China <sup>[7]</sup>. In 2019, the EU exported 1.5 Mt of plastic waste, mostly to Turkey and Asian countries, such as Malaysia, Indonesia, Viet Nam, India and (still) China <sup>[8]</sup>.



## MEASURES TACKLING THE TRAFFICKING OF PLASTIC WASTE

Decision BC-14/12  
**Plastic Waste Amendments**  
Effective 1 January 2021

<b>Annex II</b> Plastic waste, including mixtures of such wastes (excluding those that would fall under A3210 or B3011)	<b>Y48</b> (new)
<b>Annex VIII</b> Plastic waste containing or contaminated with hazardous constituents	<b>A3210</b> (new)
<b>Annex IX</b> Plastic waste presumed not to be hazardous, destined for recycling and almost free from contamination and other types of waste (single polymers resins, or mixture of PE, PEE, PET)	<b>B3011</b> (replacing B3010)

Note: PE = polyethylene; PEE = polyethylene ether; PET = polyethylene terephthalate.  
Source: Elaboration UNITAR (source: the Secretariat of the Basel Convention)

In May 2019, the fourteenth meeting of the Conference of the Parties to the Basel Convention (COP14) adopted amendments to its annexes that became effective on 1 January 2021 <sup>[9]</sup>.

These amendments include:

- waste that requires special consideration and is subject to the Prior Informed Consent (PIC) procedure (Annex II);
- the types of plastic waste that are considered hazardous and must follow the PIC procedure (Annex VIII); and
- waste presumed not to be hazardous and thus not subject to the PIC procedure (Annex IX).

For their part, receiving countries in Southeast Asia have put in place bans, restrictions and new regulations and have increased the control of imported plastic waste.

## Highlights of measures in place in some ASEAN countries

### INDONESIA

- Allows plastic imports only for the purpose of supplying raw material for industry, and the importer must be the manufacturer or producer that will directly process the plastic.
- The exporter must be registered in the country of origin, and the registration must be legalized by an official representative of the Republic of Indonesia.
- The imported plastic scrap must be clean, homogeneous, not mixed with household waste, not contaminated by hazardous waste or materials and not originating from landfill activities.

### MALAYSIA

- Imports of plastic waste are only allowed with a valid license (approval permit) issued by the National Solid Waste Management Department (JPSPN) as the competent agency, the Department of Environment (DOE) issues Compliance Letter to JPSPN if the importer complies with environmental regulations; the permit needs to be renewed annually. The permit contains details regarding the import quota for the facility for each month.
- The containers declared under HS Code 3915 must contain only recyclable clean plastic waste without hazardous waste or household waste.

### THAILAND

- In 2018, a gradual ban on plastic waste imports was imposed by reducing the import quota each year until reaching a full ban in 2020. The revised plan now aims for a complete ban in 2025, thus allowing 250,000 tons of imports in 2021 and reducing by 20% each year until reaching a full ban in 2025.
- Currently, 14 factories are authorized to import plastic scrap into the Customs Free Zone only and only from 2023 to 2024.

### VIET NAM

- Only scrap used as production material can be imported in Vietnam. And to be imported, the type of scrap (including plastic scrap) must be listed by Decision 28/2020/QD-TTg (dated 24 September 2020).
- Importers must have an environmental license and meet specific conditions aligned with environmental standards, such as having production and storage facilities with adequate technology.

### New rules in the European Union

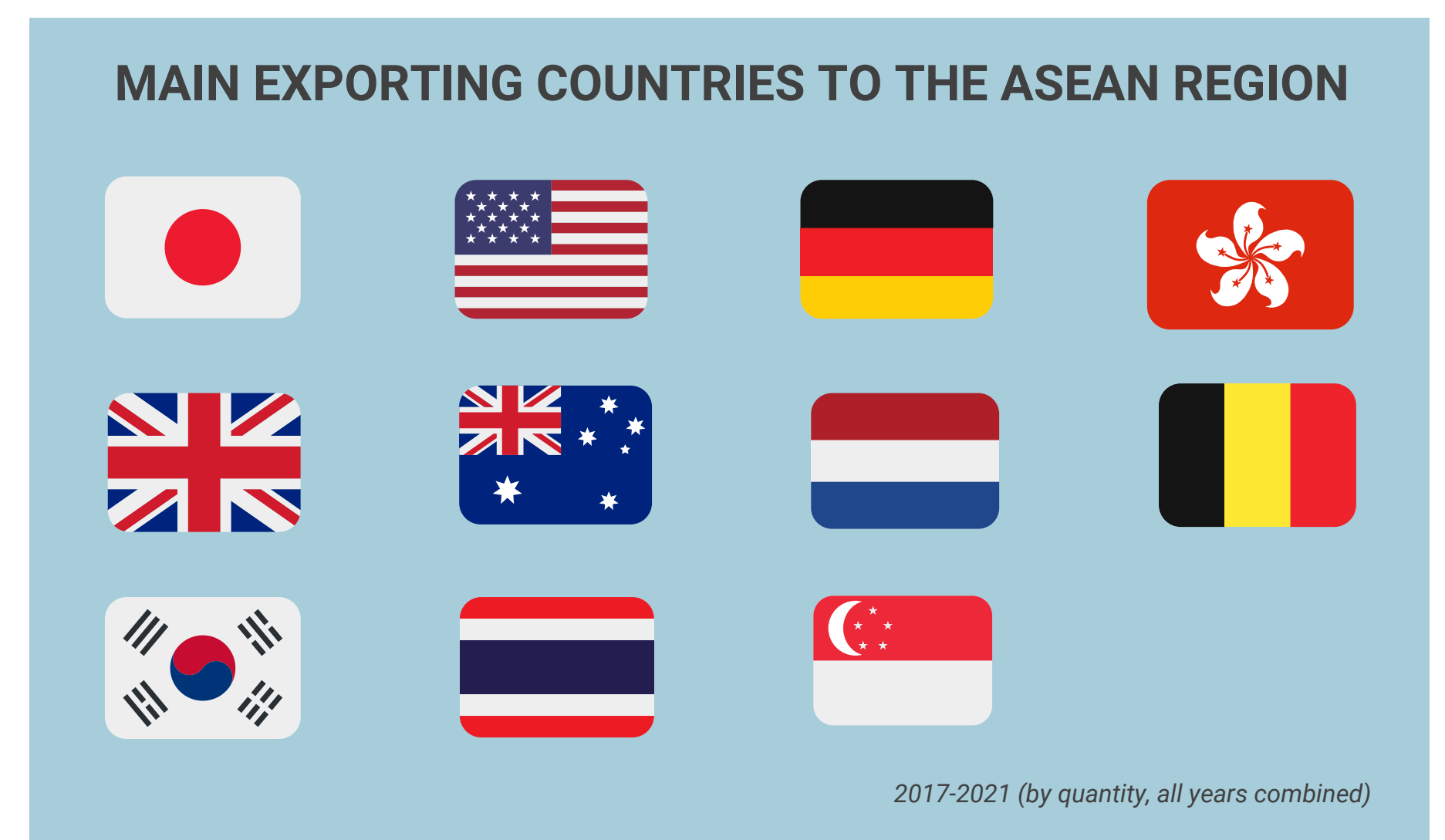
Conscious of the increasing uncontrolled trade in plastic waste and to implement a decision taken at COP14, the European Commission adopted new rules in October 2020 that ban the export of plastic waste from its region to non-OECD countries, except for clean plastic waste sent for recycling [10].

The rules also reinforce the controls on plastic waste that is exported from the EU to OECD countries as well as imported into the EU.[11]

## PLASTIC WASTE FLOWS INTO THE ASEAN REGION

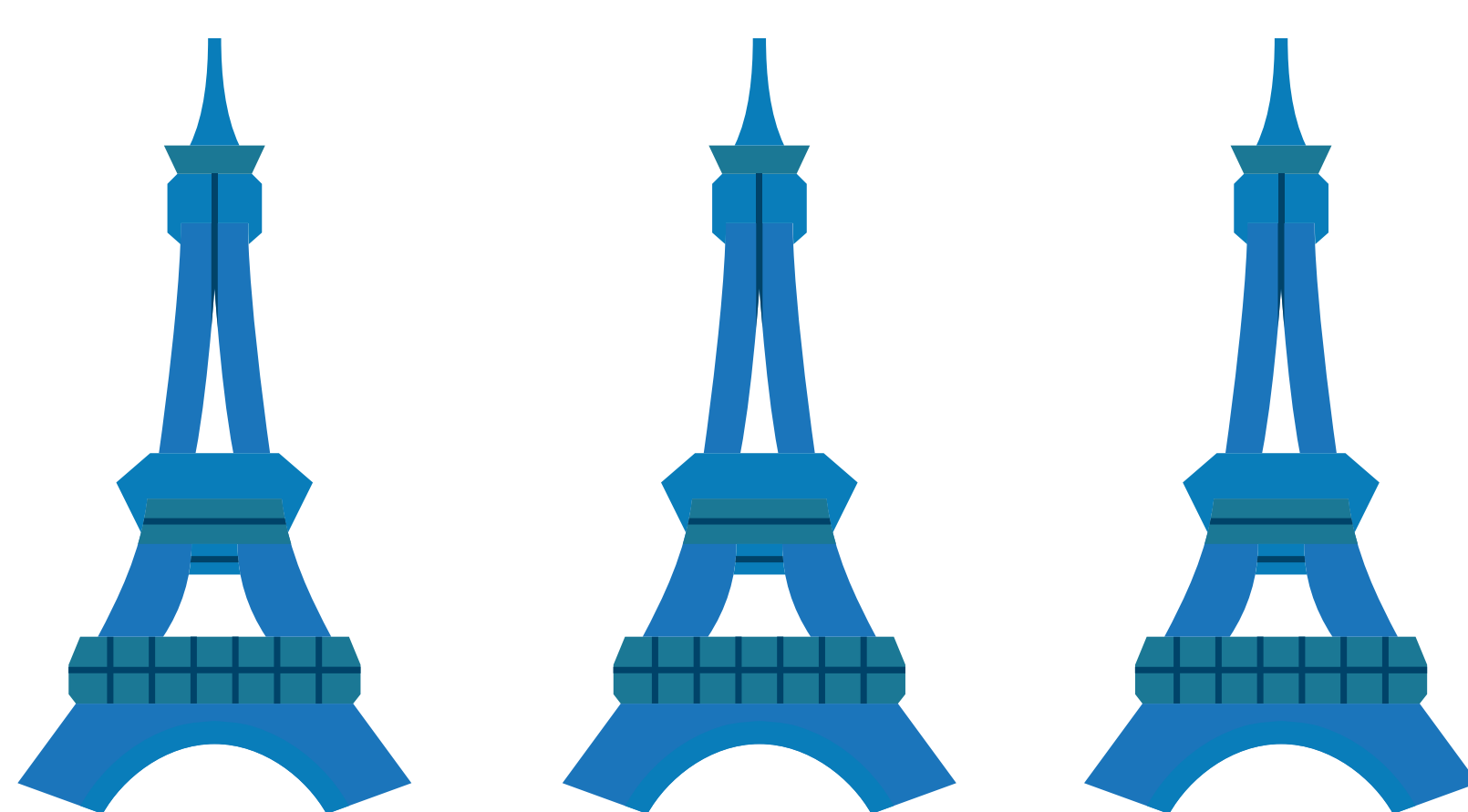
Globally, the main exporting countries (by quantity) to the ASEAN region from 2017 to 2021 were Japan, the United States, Germany, Hong Kong (China), the United Kingdom, Australia, the Netherlands, Belgium, the Republic of Korea, Thailand and Singapore.

In terms of value of exports, China joined the top exporters, in fifth position after Japan, the United States, Germany and Hong Kong (China). However, the EU Member States combined were the biggest exporters of plastic waste to the ASEAN countries for the given period, except for 2021 (when Japan was the top exporter and the EU came second). [12]



### Imports into ASEAN from the European Union

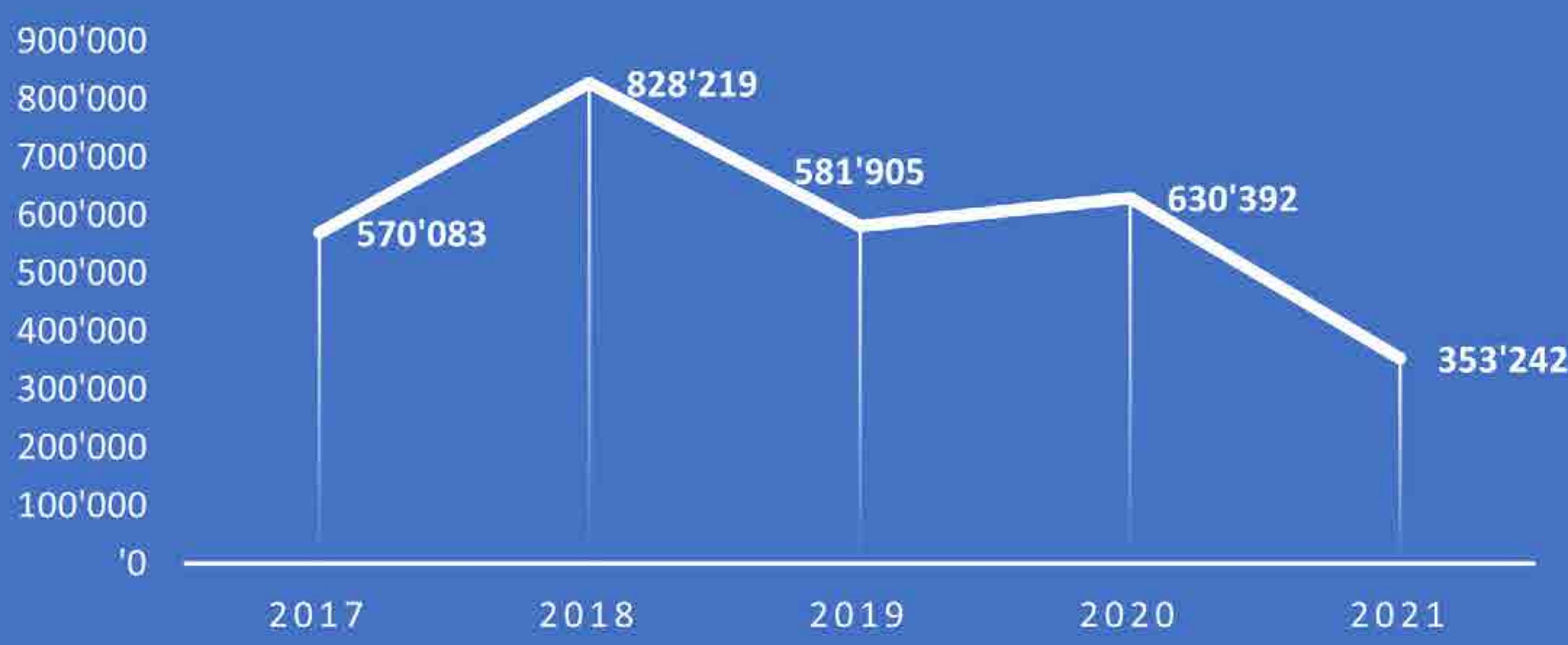
According to the data on exports from the EU between 2017 and 2021, [13] the EU [14] exported nearly 3 Mt of plastic waste to the ASEAN region[15] (2'964 Mt) – equal to the weight of almost 3'000 Eiffel towers.



x 1'000 = 3 Mt of plastic waste

As documented by several international reports[16] and illustrated below, the peak of exports to the ASEAN region was in 2018 (at 0.8 Mt), after the China ban entered into force and the waste flows were redirected to neighbouring countries. Due to the increased waste flows, ASEAN countries started to develop ad hoc measures to restrict or prohibit the import of plastic waste, and the amount of imported plastic waste from the EU returned to a volume similar to what it was in 2017 (at 0.582 Mt in 2019 and 0.630 Mt in 2020) and further decreased in 2021, reaching 0.353 Mt.

## TONS OF PLASTIC WASTE (HS CODE 3915) EXPORTED FROM THE EUROPEAN UNION TO ASEAN REGION



Note: Harmonized System Code 3915 = Waste, parings and scrap, of plastics.

Source: UNITAR, Sustainable Cycles Programme, elaboration from Eurostat data (accessed in December 2022).

The overall decrease of exports from the EU to the ASEAN region in 2021 could relate to the overall decrease of exports from the EU generally (at a negative 0.464 Mt) and the increase of intra-EU exports (at 0.388 Mt).

According to UN Comtrade data, the price per kilo of plastic waste increased by 59% from 2020 to 2021, which could mean that the plastic waste exported was of higher quality than in previous years (but can also be influenced by other factors).

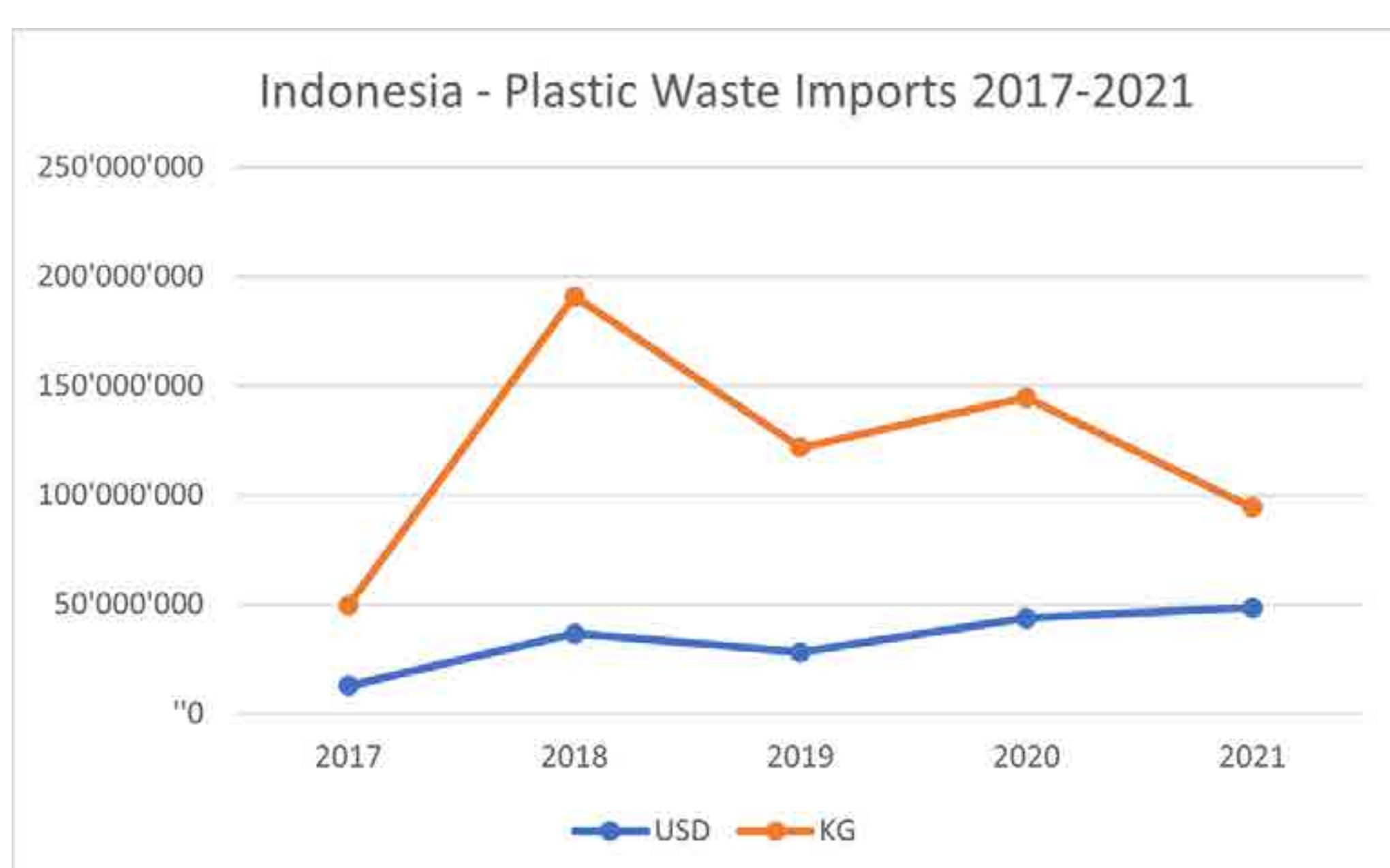
## Top importers of plastic waste from the EU in the ASEAN region

The top three countries in the ASEAN region importing plastic waste from the EU, according to the data for 2017–2021, were Malaysia (at 1.5 Mt), Viet Nam (at 0.7 Mt) and Indonesia (at 0.6 Mt), as the following map highlights.

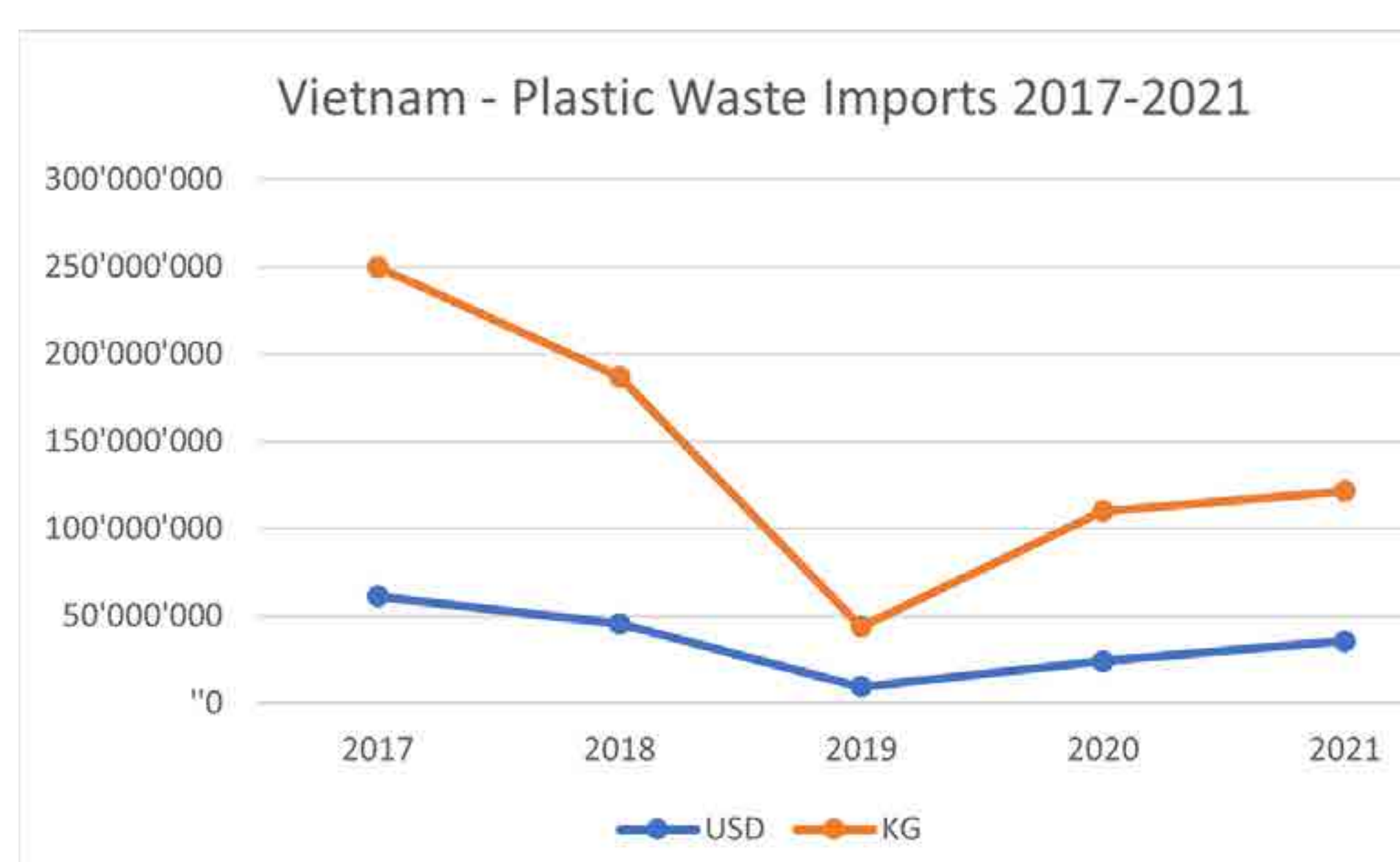
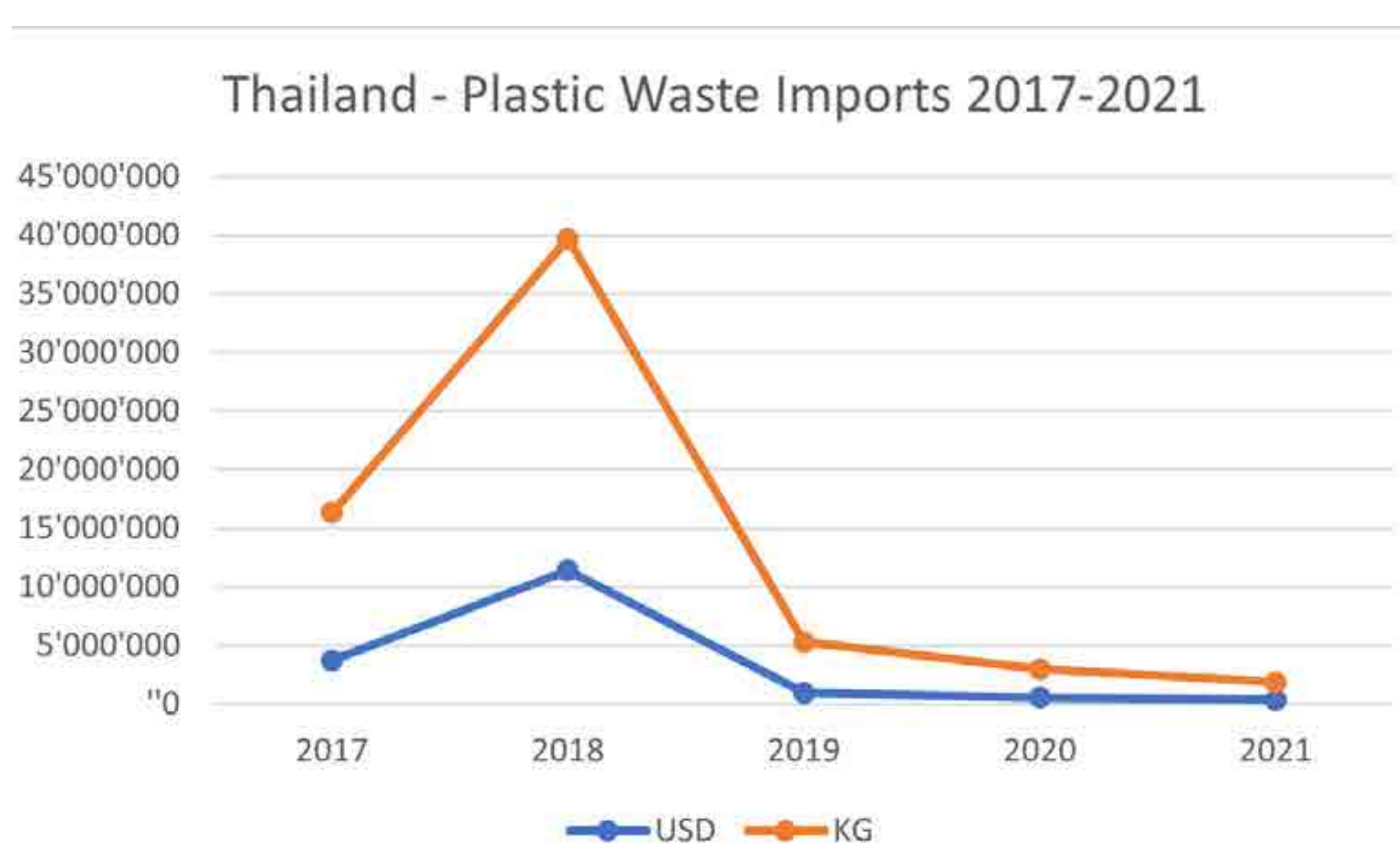
### Top ASEAN importing countries of plastic waste from the European Union, 2017–2021



Indonesia was highly affected by the consequences of the China ban: The amount of plastic waste imported from the EU almost quadrupled between 2017 and 2018 (from 50'000 t to 190'000 t), followed by Malaysia, where the overall amount almost doubled (from 250'000 t in 2017 to 405'000 t in 2018). However, an important decrease in imported quantities appeared in 2021 – by 64% in Malaysia and by 35% in Indonesia, when compared with the previous year.



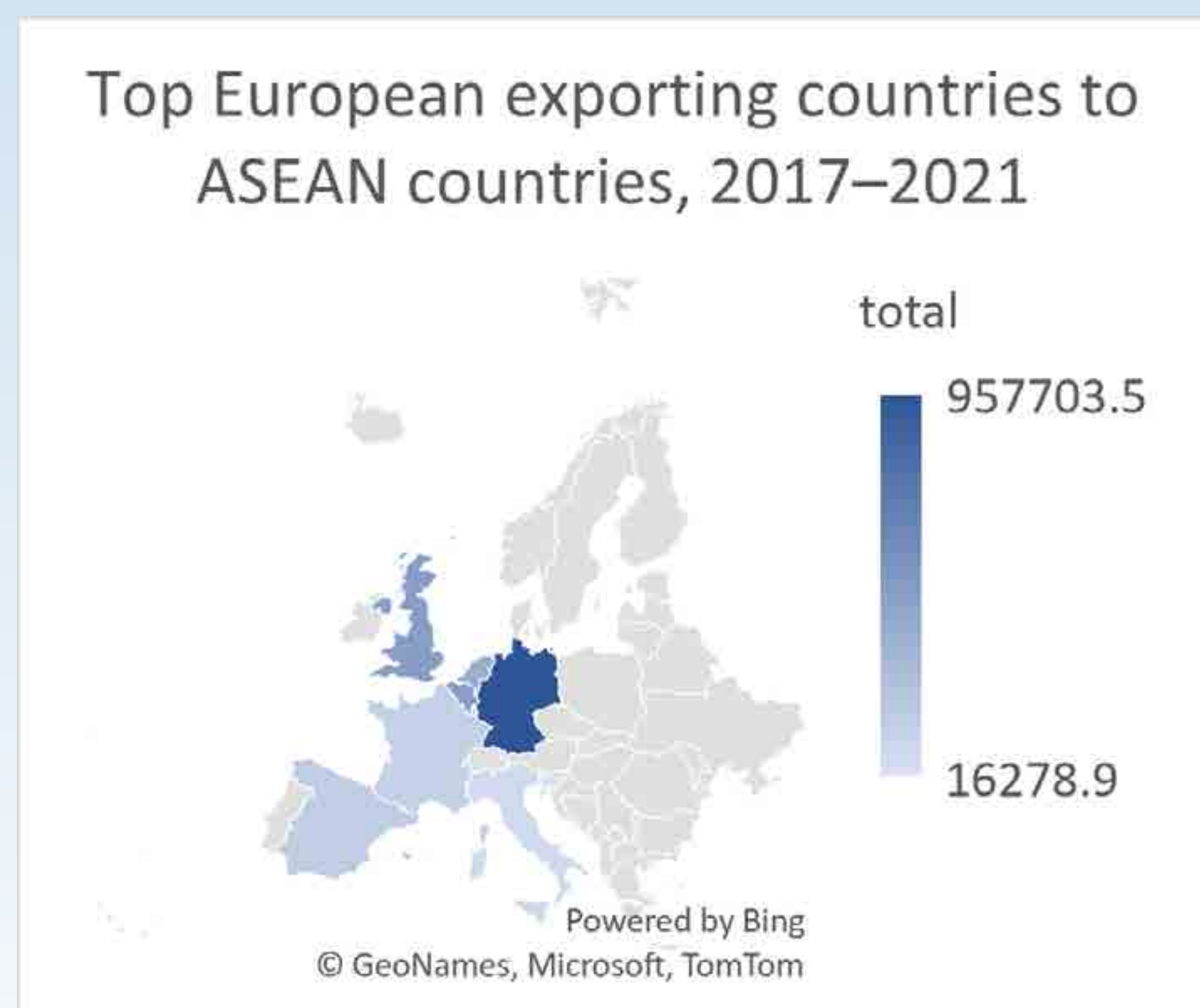
Thailand also experienced a significant decrease in imports, from nearly 40'000 t in 2018 to less than 2'000 t in 2021. Viet Nam followed a different trend: In 2017, it was importing almost 250'000 t from the EU, and the imports decreased by almost one third in 2018, and then falling to around 44'000 in 2019. But there has been a steady increase since then, with the 2021 imports from the EU at 121'000 t [17].



For Indonesia and Malaysia, the price of plastic waste almost doubled in the five-year period (2017–2021), which may indicate that plastic of higher quality was imported into these two countries.

## Top exporters within the European Union

In terms of EU countries exporting to ASEAN countries, the table below shows the top eight exporters from 2017 to 2021 (the United Kingdom only includes data from 2017 to 2019, when it was still part of the EU). Germany is the top exporter and is expected to become an important hub for the European plastic waste trade by 2030.<sup>[18]</sup>



COUNTRY	TOTAL PLASTIC WASTE EXPORTED 2017-2021 (METRIC TONS)
Germany	957'703.5
Belgium	468'052.7
United Kingdom	466'967.7
Netherlands	363'067.7
Spain	156'863.1
France	131'674.5
Italy	67'487.7
Slovenia	16'278.9

Source: UNITAR SCYCLE, elaboration from Eurostat data (2017-2021)

Looking at the trade relations between countries, Germany and Belgium are mainly exporting plastic waste to Malaysia and Viet Nam, while the Netherlands targets Indonesia in the ASEAN region.

## Interview with Yasuhiko Hotta, Sustainable Consumption and Production Programme Director, Institute for Global Environmental Strategies

The [Institute for Global Environmental Strategies](#) is a policy think tank dedicated to environmental issues in the Asia-Pacific region, including the circular economy, sustainable production and behavioural change. In 2018, IGES began collecting and analysing the policies of ASEAN countries on plastic waste and marine debris in support of Japan's presidency of the G20 and the [G20 Action Plan on Marine Litter](#). The outcome of this work is reflected in the [G20 Report on Actions Against Marine Plastic Litter: Fourth Information Sharing Based on the G20 Implementation Framework](#), published in November 2022.

IGES is also involved in the development of a data framework on evidence-based policymaking and the development of policies on behaviour change for Asia. IGES also supports countries in developing their national action plan on plastic waste management.

Yasuhiko Hotta, who is the IGES Sustainable Consumption and Production Programme Director, sees challenges emerging regarding the availability of waste trafficking data due to the ministries in charge of customs and trade

being not well connected with the ministries and agencies in charge of waste management issues and with information thus becoming dispersed.

Over the past few years, he adds, one major trend has been evident: After the China ban, the plastic waste trade was diverted to other countries in the region, notably Malaysia but also Indonesia and Thailand.

Mr Hotta notes that the COVID-19 pandemic brought about a decrease in the demand of plastic waste in the region. The trend was reinforced by the adoption of the Basel Convention Plastic Waste Amendments. The 2022 OECD report on Monitoring trade in plastic waste and scrap confirms a declining trend of exports from OECD countries while the trade between OECD countries is increasing.

Interestingly, prices seem also to be increasing, which suggests that more quality plastic is being exchanged. Low-quality plastic waste is not economically attractive, thus the demand is much lower. Field information collected by IGES from recyclers in different countries shows that they are not receiving plastic from third countries, while they receive more plastic waste produced domestically.

## CASE STUDY

In 2020, Malaysia was the top destination for plastic waste originating from Japan and the second destination country for such waste from the United Kingdom, the United States and Canada. It was also an important trade partner for this commodity with other EU countries, such as the Netherlands, Germany and France.<sup>[19]</sup> In 2021 and although imports from some countries were relatively steady, there was a sharp decrease in the EU's export of waste to Malaysia, from 366'000 t to 133'000 t<sup>[20]</sup>.

Although strict requirements were imposed – that imported waste must be clean, homogenous and free from contaminants, illegal waste was being shipped to Malaysia using illegal methods, such as mislabelling or misdeclaration.

From September 2019 to June 2022, a total of 286 illegal containers of plastic waste were repatriated to their origin countries or territories, including the United States, France, the United Kingdom, Canada and Hong Kong (China).

The Malaysian authorities continue to impose strict actions against importers who fail to comply with regulations, including sending back the imported containers of waste to their country of origin, in accordance with the Basel Convention.

In October 2022, the Dewan Rakyat (House of Representatives) Malaysia passed the [Environmental Quality \(Amendment\) Bill](#) to increase the penalty to not more than 10 million Malaysian ringgit (approximately USD2.3 million) for such offences as water pollution and illegal disposal of scheduled waste.

The bill will continue its legislative journey for approval of the Dewan Negara (Senate) of the Malaysian Parliament and assent of the Yang di-Pertuan Agong (the constitutional monarch and head of state of Malaysia) and to be gazetted before becoming law.



## NEWS UPDATES

### UNODC side events at CoP27 in Egypt

The 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27) took place 7–18 November 2022 in Egypt. UNODC participated in [COP27](#) through various events and activities: In support of the 50 by 2050 initiative, UNODC jointly organized a high-level side event on [Unmanaged Waste – A Hidden Cause of Climate Change](#) on 11 November.

The event highlighted the value of how combating waste trafficking and supporting environmentally sound waste management can contribute to reducing greenhouse gas emissions and promoting the circular economy as a climate mitigation strategy.

UNODC also co-organized the [How Combating Plastic Pollution and Illegal Traffic in Plastic Waste Can Help Reduce Carbon Emissions](#) side event on 10 November, focusing on how to generate climate change mitigation solutions by addressing the world’s plastic waste problem.



### Proposed United Nations treaty on plastic pollution

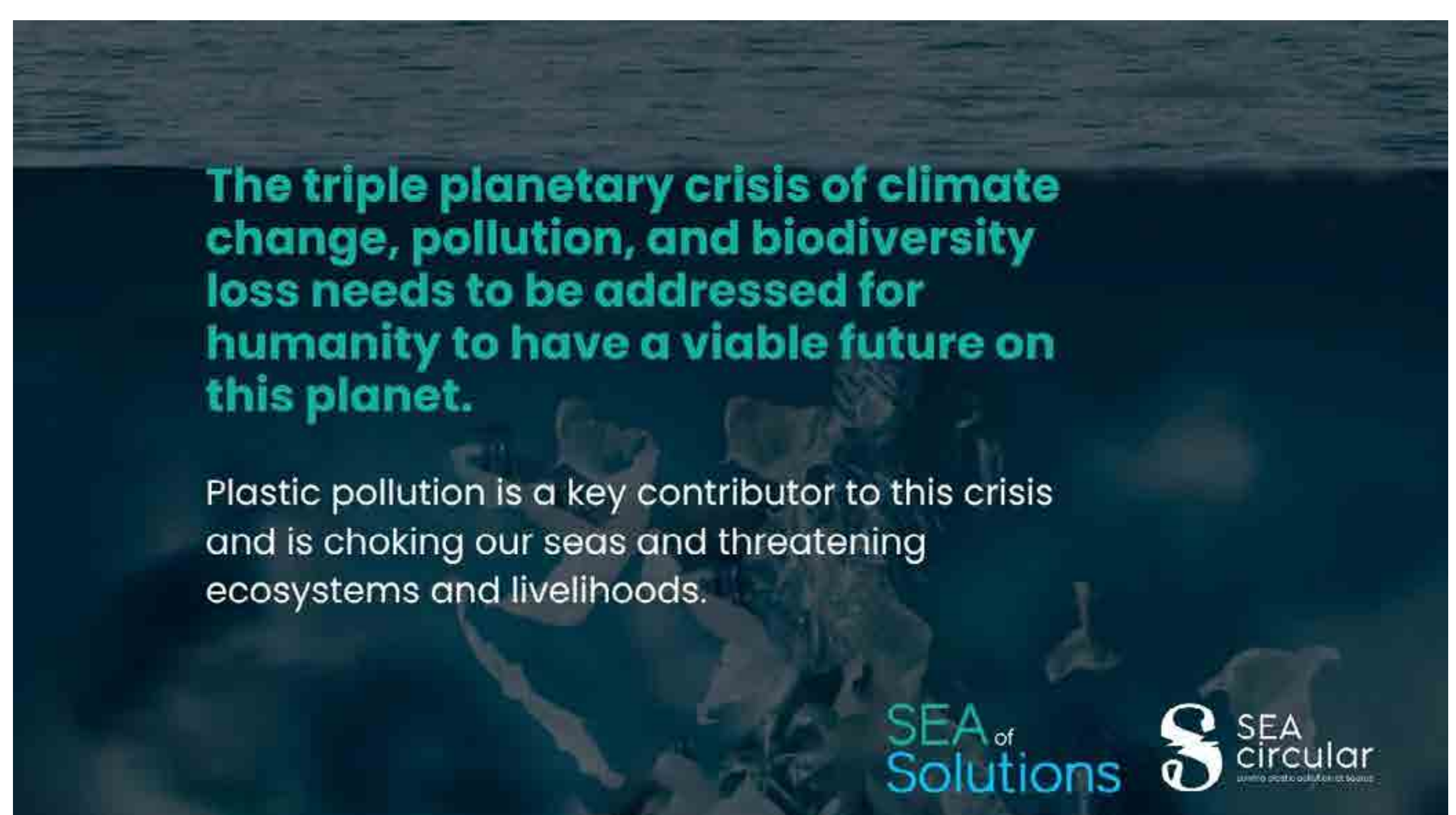
In March 2022, the United Nations Environment Assembly adopted a landmark resolution intitled entitled “End plastic pollution: Towards an international legally binding instrument” ([UNEA Resolution 5/14](#)) and initiated negotiations for a global plastics treaty to end plastic pollution.

Hailed as the most significant multilateral proposal since the Paris Agreement in 2015, the resolution establishes an Intergovernmental Negotiating Committee tasked with preparing a legally binding treaty by 2024. Its first session, to develop an international legally binding instrument on plastic pollution and including the marine environment, took place in Uruguay from 28 November to 2 December 2022. A science policy panel was established to contribute to the sound management of chemicals and waste and to prevent pollution.

The ad hoc **Open-Ended Working Group on the Science Policy Panel**, mandated to prepare proposals for the science policy panel, will have its first meeting in Bangkok, Thailand, from 30 January to 3 February 2023. More information is available [here](#).

### SEA of Solutions event in November 2022

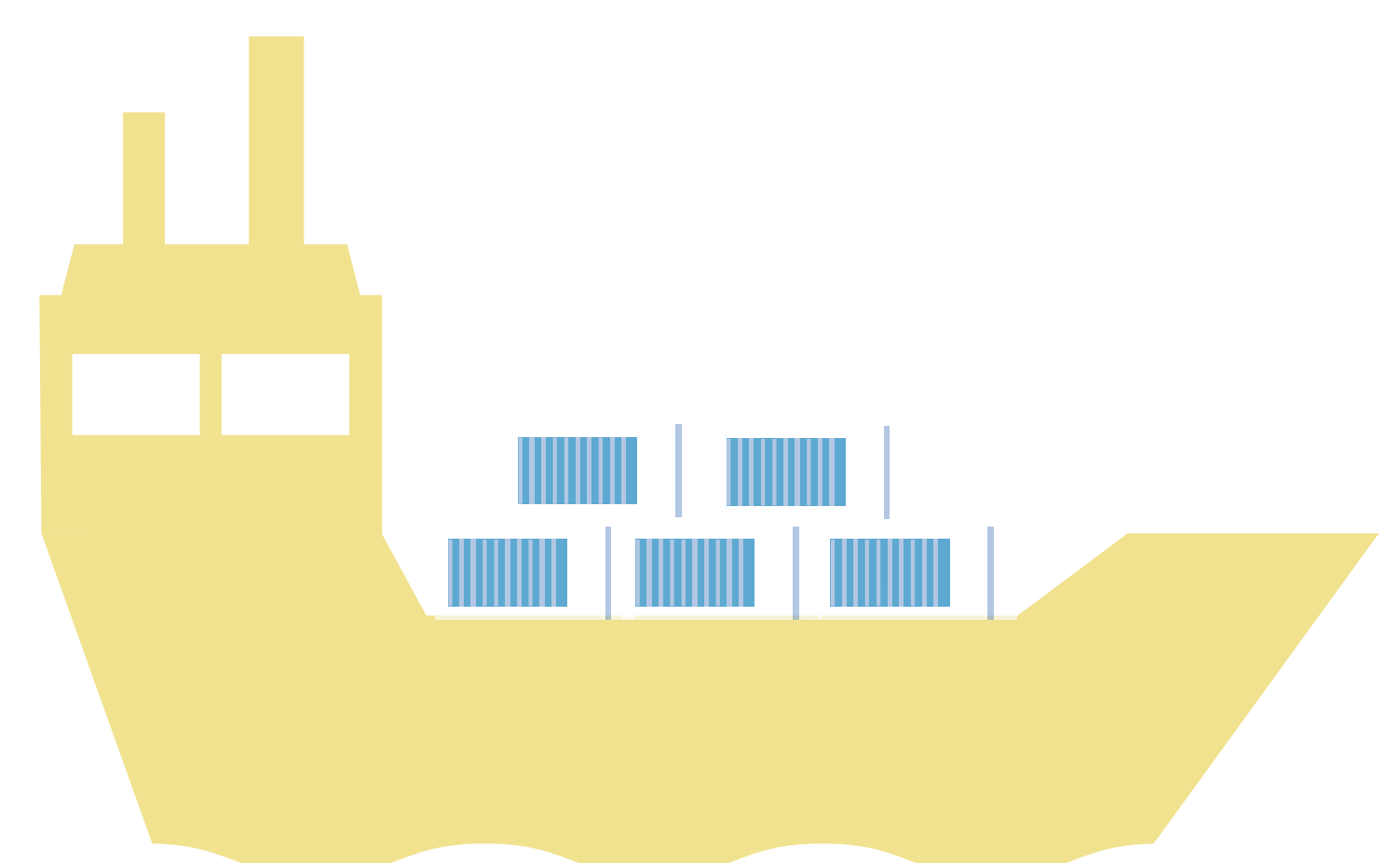
Over the past three years, **SEA of Solutions (SoS)** – the annual flagship event of [SEA Circular](#) – has served as a forum to exchange good practices, enable meaningful dialogue and empower stakeholders to promote circularity in the plastic value chain within Southeast Asia. SoS 2022 (23–25 November 2022) spotlighted unique and impactful solutions along the plastic value chain covering three cross-cutting themes: innovation, inclusion and collaboration. For more insights, visit [here](#).



### Operation Demeter VIII

For all of October 2022, Operation Demeter VIII coordinated participating customs administrations to intercept illegal shipments of hazardous waste. It was led by the World Customs Organization Secretariat, the Regional Intelligence Liaison Office for Asia and the Pacific (RILO AP) and China Customs, with the assistance of the Operational Coordination Unit based in the RILO AP in Seoul, Republic of Korea.

It resulted in 139 seizures of hazardous waste, especially plastic waste, as well as ozone-depleting substances and hydrofluorocarbons (HFCs). Find more information [here](#).



## PUBLICATIONS AND MEDIA

The following publications and news items relate to waste in Southeast Asia. They are drawn from desk research and information sent by stakeholders involved in the *Unwaste* project.

**UNODC:** *Crimes that Affect the Environment and Climate Change* (2022)

**OECD:** *Global Plastics Outlook: Policy Scenarios to 2060* (June 2022)

**Ministry of the Environment, Japan:** *G20 Report on Actions against Marine Plastic Litter: Fourth Information Sharing based on the G20 Implementation Framework 2022* (November 2022)

**Journal of Cleaner Production:** *Evolution of global plastic waste trade flows from 2000 to 2020 and its predicted trade sinks in 2030* (November 2022)

**OECD Environment Working Papers:** *Monitoring trade in plastic waste and scrap* (April 2022)

**OECD:** *Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options* (February 2022)

**Minderoo Foundation:** *The Price of Plastic Pollution: Social Costs and Corporate Liabilities* (October 2022)

**Global Initiative:** *Plastic for Profit: Tracing Illicit Plastic Waste Flows, Supply Chains and Actors* (November 2021)

**Sustainability Journal:** *Impact of COVID-19 on food and plastic waste generated by consumers in Bangkok* (August 2021)

**Heinrich Böell Stiftung Hong Kong:** *Plastic Atlas: Facts and Figures About the World of Synthetic Polymers: Asia Edition* (April 2021)

**IGES:** *G20 Report on Actions Against Marine Plastic Litter: Fourth Information Sharing Based on the G20 Implementation Framework* (November 2022)

**Waste Management IGES:** *Current situation and key challenges on the use of single-use plastic in Hanoi* (February 2021)

**Mission of the European Union to ASEAN and ASEAN Secretariat:** *Circular Economy and Plastics: A Gap-Analysis in ASEAN Member States* (October 2019)

## N O T E S

**[1]** Jambeck, Geyer, "[Production, use, and fate of all plastics ever made](#)" *Science Advances* (19 July 2017).

**[2]** Megatonne, abbreviated as Mt, is a metric unit equivalent to 1 million tonnes, or 1 billion kilograms.

**[3]** OECD, *Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options* (2022).

**[4]** UNEP Beat Pollution campaign [here](#).

**[5]** See working paper [here](#).

**[6]** UN Comtrade data

**[7]** European Commission, [A European Strategy for Plastics in a Circular Economy](#).

**[8]** European Commission; [Plastic waste shipments: new EU rules on importing and exporting plastic waste](#)

**[9]** Basel Convention Plastic Waste Amendments overview: [http://www.basel.int/Implementation/Plasticwaste/Amendment s/Overview/tabid/8426/Default.aspx](http://www.basel.int/Implementation/Plasticwaste/Amendment%20s/Overview/tabid/8426/Default.aspx)

**[10]** [Commission Delegated Regulation \(EU\) 2020/2174 of 19 October 2020 amending Annexes IC, III, IIIA, IV, V, VII and VIII to Regulation \(EC\) No 1013/2006 of the European Parliament and of the Council on shipments of waste](#)

**[11]** See note [8]

**[12]** UN Comtrade data

**[13]** This time frame was selected to monitor the evolution of the EU to ASEAN plastic waste flows after China's import ban on waste entered into force in 2018.

**[14]** According to Eurostat, the EU data include the United Kingdom only up to 2020.

**[15]** The ASEAN region includes: Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam.

**[16]** See, among others :

- [Current influence of China's ban on plastic waste imports](#)
- [An analysis of the plastic waste trade and management in Asia](#)
- [Structure of the global plastic waste trade network and the impact of China's import Ban](#)

**[17]** UN Comtrade data

**[18]** See: [Evolution of global plastic waste trade flows from 2000 to 2020 and its predicted trade sinks in 2030](#)

**[19]** UN Comtrade data

**[20]** Rounded to the nearest thousand.

## About the *Unwaste* project

***Unwaste* project aims to fight trafficking in waste between the EU and Southeast Asia by promoting cooperation and partnerships, in support of ongoing efforts towards a circular economy transition, in line with the relevant policy frameworks.**

More information [here](#).

[Unwaste Trendspotting Alert No.1](#)

[Unwaste Trendspotting Alert No. 2](#)