



ONLINE WORKSHOP SERIES
On Circular Plastic Use
Innovate & Change to Close the Loop

BACKGROUND ON SINGLE-USE PLASTIC



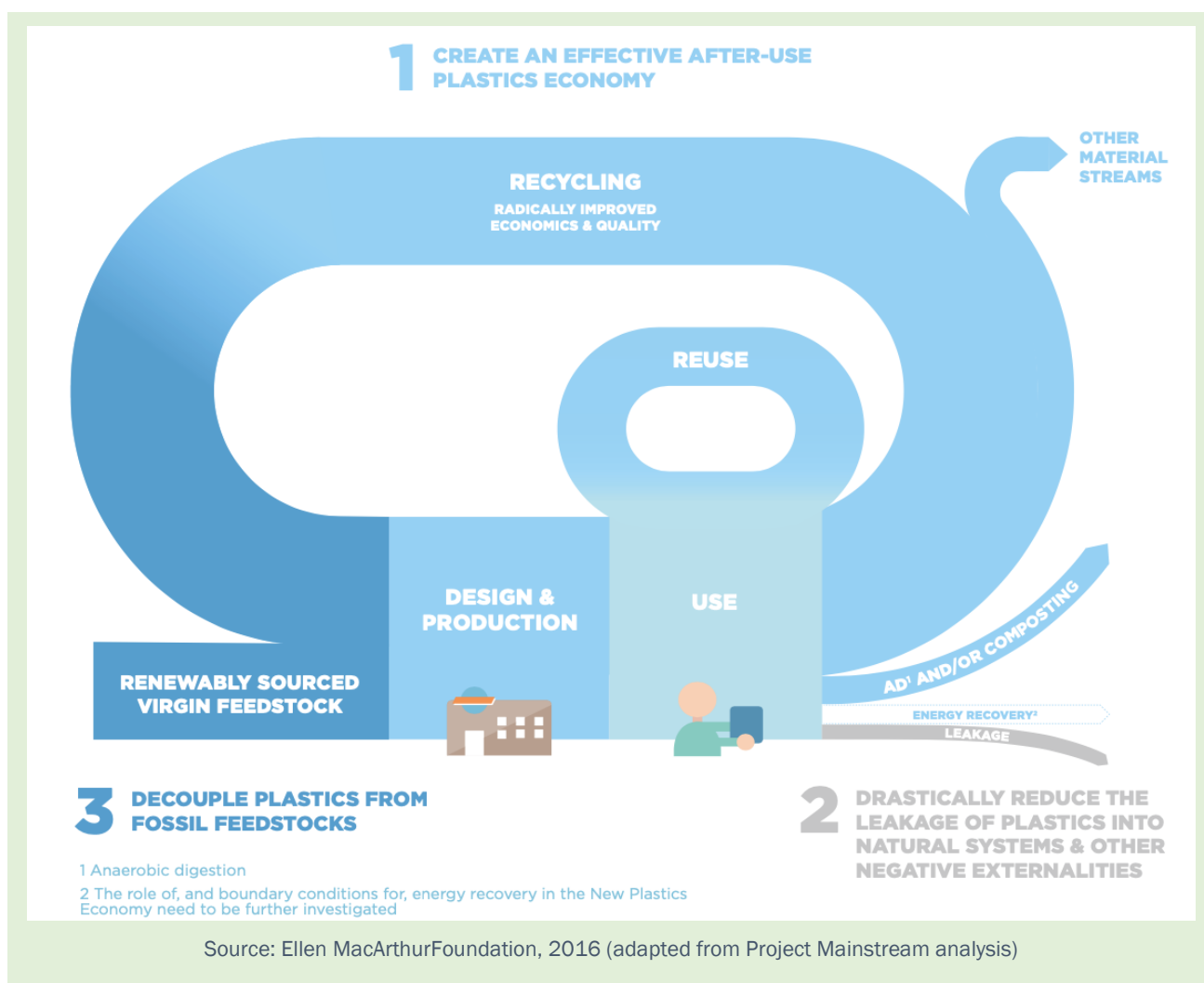
Background on Single-use Plastic

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1. Introduction to Single-Use Plastic (SUP)

Based on 2015 figures, the world produces more than 400 million tons of plastic that year, with the largest proportion being designed for immediate disposal. The overconsumption of single-use plastics and the mismanagement of its waste has led to a series of local and transboundary problems – there is an estimated 12 billion tons of plastic litter in landfills and the natural environment.

Applying the concept of circular economy to single-use plastics requires innovation and redesign of products to reduce, or altogether eliminate, their consumption in different applications. Where single-use plastics are still being used, it should be designed to be reusable, recyclable or compostable, and free of hazardous chemicals. Its consumption needs to be decoupled from the use of non-renewable resources. The health, safety, and rights of all people involved in its lifecycle need to be protected.



1.1. What is Single-Use Plastic?

- Plastic, as a low cost of production, lightweight, and ability to withstand contamination, makes its application **highly essential in the industrial production and distribution of goods**. While plastic as a material is not an issue, the **overconsumption of plastic and its mismanagement during its lifecycle** has led to an estimated 12 billion tons of plastic litter in landfills and natural environment¹ Single-use plastics are responsible for a large part of overconsumption, mismanagement and pollution problems.

¹ Geyer, Jambeck, and Law, cited in UNEP 2018

- **Single-use plastics**,² commonly referred to as disposable plastics, are **items that intended to be used only once** before being thrown away or recycled (e.g. plastic packaging or serveware). The "throwaway" mindset has led **packaging** to take up the **largest share of global plastic production and waste generated**.

Global plastic production and waste generated in 2015, by sector

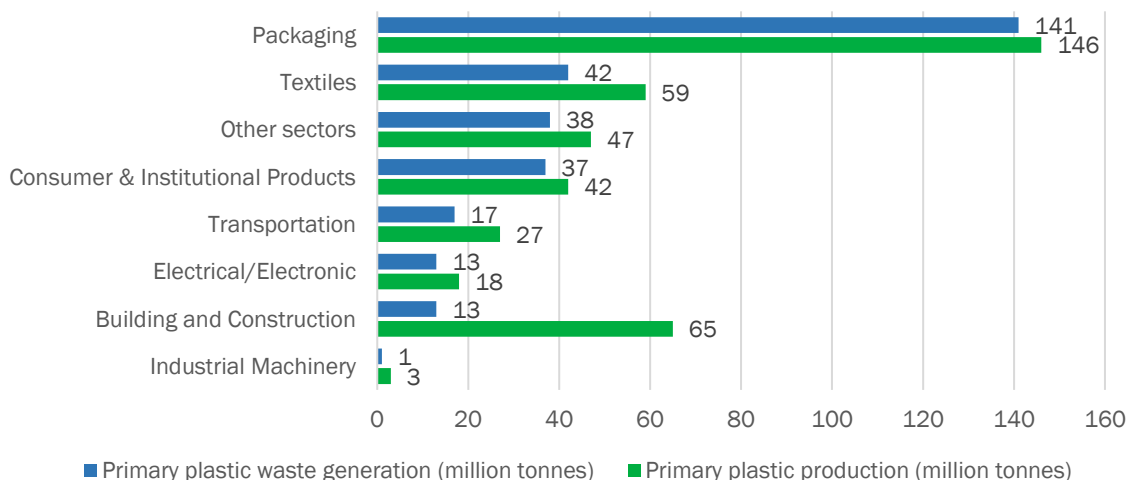


Figure 1 Source: Geyer et al. 2017 (adapted from Our World in Data)

1.2. Problems resulting from ineffective single-use plastic waste management

The production and consumption of SUP can create and contribute to various environmental, social and economic issues.

- **Environmental impacts:**
 - Sea/Ocean pollution: Leakage of SUP through waterways³ or transportation⁴ ending up in the ocean endangers marine life through ingestion and entanglement and pollute the oceans by breaking into microplastics that are not readily absorbed by the natural environment.
 - Air, soil & water pollution:
 - Open or uncontrolled burning of plastics and disposal of by-products⁵: Toxic fumes released and contamination of groundwater can pose health hazards.
 - Oil and gas extraction and refining for its production causes air pollution and releases hazardous waste.
 - Greenhouse Gas Emissions: GHGs emissions from all stages of the plastic lifecycle increase the concentration of GHGs in the atmosphere that negatively impacts climate change.
- **Social impacts:**
 - the lack of infrastructure and proper waste management facilities: Dumpsites appear in residential areas and the accumulating waste clogged waterways/sewers. These are also breeding sites for disease-carrying vectors.
 - Hazardous additives that are contained by some of the plastic materials (e.g. Bisphenol A (BPA); Di-(2-ethylhexyl)phthalate (DEHP)) have been to cause adverse health effects.

² Examples include plastic bags; PET bottles; plastic straws; plastic disposable cups and cutlery; Styrofoam

³ Usually via improper disposal on land e.g. littering

⁴ Transportation to landfills etc.

⁵ Usually in developing countries lacking proper infrastructure and waste management facilities

- **Economic impacts:**

- Loss of material value: 95% of plastic packaging material value (USD 80-120 billion annually) is lost to the economy after a short first use⁶
- Negative externalities: The total value of negative externalities of plastic packaging is conservatively estimated to be at USD 40 billion and expected to increase significantly in a business-as-usual scenario⁷

2. Single-use plastics in Asia & Europe

Even though Asian ASEM member countries produce more than half of the world's plastic, with China dominating the market, the European counterparts produce almost twice the amount of plastic waste compared to the Asian partners. At the same time, although European ASEM member countries are performing local plastic waste management more efficiently, they exported almost 4.6 megatonnes of plastic waste and scraps globally in 2018, more than twice the amount exported from Asian partners.

With the recent banning of plastic imports in China, most of the waste has been diverted to developing countries in Asia, with Malaysia getting the bulk of the waste in 2018. It is important to note that plastic wastes have been exported to countries with lesser waste management capabilities – all top 5 importers from the ASEM member countries were listed as one of the top contributors of mismanaged plastic waste globally.

As of 2019, only 11 out of 21 Asian ASEM member countries have existing or approved national/sub-national policies on SUP – policies that may help regulate nationally produced plastic waste. However, studies in the ASEAN region highlighted the existing gaps that exist which undermine the success of enacted policies. The region could benefit from regional directives similar to the EU. On the other hand, 22 out of 30 European ASEM member countries have existing or approved national/sub-national policies on SUP. The number is expected to increase due to the 2019 EU directive on single-use plastics.

2.1. Single-use plastics in Asia

- Asian ASEM Partners account for more than half of global plastic production in 2018^{8 9}
 - China dominates global plastic materials production in 2018 at 30% (See Annex 1, Figure 2)
- At the same time, Asian ASEM member countries only account for ~8% of the global amount of plastic waste generated per day¹⁰
 - China is the largest per capita generators of plastic waste per day among Asian ASEM Partners. However, if further disaggregated, per capita plastic waste from Mainland China is lower than that of Thailand (0.144 kg/capita/day). Hong Kong and Macao SAR are the most significant contributors, according to per capita plastic waste. (See Annex 1, Figure 3)
- The top 5 Asian ASEM partners importing plastic waste and scraps in 2018 were Malaysia; China (Hong Kong SAR); Thailand; Indonesia; and India¹¹ – all 5 of which are listed as the top contributors of mismanaged waste globally¹² (See Annex 1, Table 1)

⁶ Ibid

⁷ Ellen MacArthur Foundation, 2016

⁸ Statista, 2020

⁹ Assuming the proportion of types of plastic produced are spread evenly among countries, we can assume that Asian ASEM Partners contributes to more than half of the world's packaging plastic

¹⁰ Jambeck et al. 2015

¹¹ UN Comtrade, 2020

¹² Ibid

- Conversely, the top 5 Asian ASEM partners exporting plastic waste and scraps in 2018 were Japan, Viet Nam, Indonesia, Korea; and Australia. Japan is ranked second among all ASEM partners¹³ (See Annex 1, Figure 5 & 6)

Policies on Single-use plastics in Asia

- As of 2018, out of 21 Asian ASEM Partners, 11 have existing or approved national/sub-national policies on SUP: 7 of which implement only bans; 1 only levies; and 3 combination of bans and levies¹⁴
- An ASEAN gap analysis study conducted by UNEP (2019) noted the policy gaps ASEAN member states can be improved by the introduction of Extended producer responsibilities or green procurement plans (See Annex 1, Table 2)

2.2. Single-use plastics in Europe

- European ASEM member countries accounted for less than a quarter of global plastic production in 2018. (See Annex 1, Figure 2)
- Despite the significantly lower production of plastics as compared to Asian ASEM partners, the European counterparts produce almost twice as much plastic waste per day, 15% of global plastic waste production.¹⁵ (See Annex 1, Figure 3)
- At the same time, European ASEM partners export significant amounts of plastic waste and scraps to the rest of the world. Just in 2018 alone, European ASEM partners exported almost 4.6 MMT of plastic waste and scraps, more than twice the amount from Asian ASEM member countries (2.2 MMT)¹⁶
- With the recent banning of plastic imports in China and the amendment of the Basel convention, European partners are forced to rethink their management of plastic waste. (See Annex 1, Figure 5 & 6)

Policies on Single-use plastics in Europe

- As of 2018, out of 30 European ASEM Partners, 22 have existing or approved national/sub-national policies on SUP¹⁷. 1 of which implement only bans; 17 only levies; and 4 combination of bans and levies
- The number of policies is expected to increase due to the 2015/720 EU Directive on SUP¹⁸: Member states must ensure no more than 90 lightweight bags are consumed per person per year by the end of 2019. By the end of 2025, the number should be reduced to no more than 40 bags per person per year

3. Tackling single-use plastics in Asia and Europe

3.1. Applying the Circularity Concept

The Ellen MacArthur Foundation report on the New Plastics Economy from 2016 suggested a multi-pronged strategy for circularity in plastic packaging:

1. Eliminate unnecessary plastic packaging through innovation, redesign, and alternative delivery models
2. Reduce the need for single-use packaging by adopting reuse models wherever possible

¹³ Ibid

¹⁴ Data extracted from UNEP (2018)

¹⁵ If the Special Administrative Regions of China were to be disaggregated, Germany would top the list among ASEM partners

¹⁶ UN Comtrade, 2020

¹⁷ Data extracted from UNEP (2018)

¹⁸ Directive 2015/720

3. Design all plastic packaging to be reusable, recyclable, or compostable
4. Ensure all plastic packaging is reused, recycled (as material, not through waste-to-energy), or composted
5. Decouple the use of plastics from the consumption of non-renewable resources
6. Ensure that all plastic packaging is free of hazardous chemicals
7. Protect the health, safety, and rights of all people involved in the lifecycles of plastics

3.2. Positive Trends in Asia

- **Increase in social awareness and public pressure.** Increased visibility and publicity on the harmful impacts of mismanaged plastic waste have acted as triggers for change, especially in the Southeast Asian region: a growing number of countries across Southeast Asia have returned unwanted waste to their country of origin – e.g. In January 2020, Malaysia had sent back close to 4,000 metric tonnes of unwanted waste to countries including France and UK (totalled to 85 out of 150 containers)¹⁹
- **Increase in civil society initiatives and movements tackling single-use plastic.** There is an increasing number of bottom-up initiatives which were effective in addressing single-use plastic and inspired further movements nationally or globally. For example, a youth initiative, "Bye Bye Plastic Bags", in Bali led to the eventual banning of plastic bags on the island 4 years later. "Plastic palit Bigas" (Plastic in exchange for rice) was launched by a youth council in one village in the Philippines where villagers could exchange plastic wastes for rice. This was then also taken up by another district. In less than a month, approximately 240 kg of rice was exchanged, i.e. equivalent to 480 kg of empty bottles, 720 kg of assorted plastics or 240 kg of plastic wrappers.
- **Rise of more sustainable local businesses.** Social enterprises promoting eco-friendly alternatives or upcycled products made from plastic are gaining traction. These enterprises are able to stimulate the creation of village industries and increase employment. For example, a microbusiness in Luang Prabang, BambooLao, has kickstarted a plastic straw revolution in the province and has created new village industries for locals. Packaging-free supermarkets such as Wasteupso in Korea and Unpackt in Singapore have been successful in running their businesses catering to the more environmentally-conscious consumers.
- **Voluntary actions taken by businesses.** Although laws regulating the use of single-use plastic are lacking in many Asian ASEM member countries, there are a rising number of businesses, both local and MNCs, voluntarily opting to reduce the consumption of SUP. For example, in Singapore, there is a rise in the number of F&B outlets, from local restaurant Zam Zam to global fast food chains KFC, replacing or removing SUP. Founded in Cambodia by companies in Siem Reap's hospitality and tourism industries, there is also a global campaign to reduce PET bottles by issuing reusable bottles and providing free water refill locations across the city.

3.3. Positive Trends in Europe

- **Increase in policies/initiatives to reduce consumption of SUP.** As mentioned previously, boosted by the new targets stipulated by the EU directive 2015/720, countries will be required to implement stricter policies or/and support R&D and sustainable businesses to meet the new targets.
- **Increased rate of recycling.** From 2006 to 2018, the total amount of plastic waste sent to recycling in the EU has doubled while the quantity of plastic packaging waste sent to recycling has increased by 92%²⁰
- **Rise in product/material innovation and use of technology to encourage recycling.** There is an increasing number of businesses investing in new technologies, from making high quality recycled

¹⁹ BBC, 2020

²⁰ Plastics Europe, 2019

plastic to edible packaging. There are also new businesses/social enterprises using mobile apps for the cause. For example, Sulapac, based in Finland, creates packaging made entirely from renewable sources and certified wood. Yoyo, based in France, is a mobile platform that improves waste sorting in cities by providing attractive incentives such as movie tickets. And, TOMRA, based in Norway, creates new recycling technologies and solutions.

- **High-impact initiatives and movements tackling single-use plastic.** There is an increasing number of bottom-up initiatives which were effective in tackling single-use plastic and inspired further movements nationally or globally. For instance, Surfers Against Sewage, a non-profit, awards "Plastic Free Community" status to communities if they met a set of objectives and targets. Success stories include Penzance and Anglesey (an island in the UK). Zera, founded by a changemaker in Bulgaria, is revolutionising the throwaway culture prevalent public kindergartens in the country by introducing a simple yet effective intervention – providing reusable cups to children.

3.4. Main challenges

- **Plastic is so intricately intertwined with economic growth** due to its close relationship with consumerism and domestic and multinational corporations, including the oil sector. Tackling the plastic issue at its roots is **highly complex** and would be faced with influential lobbying groups. There is a need to look at the issue as a **system** to see how the **relationship between stakeholders – business, government and society** – could create an **enabling environment** for change.
- **Plastic wastes being exported from high-income countries to lower ones is a dire problem.** The adopted amendments to the Basel Convention, which only allows the trade of clean, sorted and recyclable plastic, may regulate the transboundary movements better. However, the trade value of plastic wastes can be highly lucrative – in 2018, the trade of plastic wastes in the ASEM region is valued at USD 4.84 billion.²¹ Loopholes or illegal means of exporting and importing wastes should be anticipated.
- Plastic pollution is further exacerbated in **middle-income countries** where **economic growth is outpacing waste management infrastructure development**
- **Lack of data** to properly measure the consumption rate dampens the monitoring and evaluation efforts on policies enacted or voluntary initiatives implemented.²²
- For an effective and lasting transformation, a **change in consumption patterns is crucial**. While top-down regulation may seem fast and effective, it may result in the oversimplification of the issue resulting in limited success, especially in countries where awareness on the matter is low.²³ **Behavioural change, both on the production and the consumption side, is a gradual and lengthy process.** As plastic pollution is a **cumulative problem**, steps ought to be taken to reduce still the volume of plastic waste generated during this process.

4. Human rights & gender considerations for tackling single-use plastics

4.1. Human rights dimensions

- **Exporting (especially via illegal means) the high volume of plastic waste to low-income countries** with a lack of waste management capacity can be deemed a human rights violation. In the Universal Declaration of Human Rights, Article 25 states that all humans have the **right to a standard of living that supports their health and well-being**. They are also many **specific environmental rights** through the Environmental Rule of Law and Environmental Governance. For e.g.
 - Right to a **safe, clean, healthy and sustainable** environment
 - Right to **seek information** regarding environmental issues

²¹ UN Comtrade, 2020

²² UNEP, 2018

²³ Ibid

- Right to **participate in public decision-making**

4.2. Gender dimensions

- In general, **at a household level, women are more likely to buy most of the food and other basic consumer goods** – about 20% of the global plastic demand is at household²⁴ **Women could play an essential role in reducing the application of plastic consumer goods in the household.** For example, the One Million Women campaign in Australia started because women make 85% of the household purchasing decisions there. As such, the campaign raises awareness on how to work towards a zero-waste kitchen and single-use plastics alternatives
- The **wide-ranging application of plastics means that they are utilised in a huge range of industries.** As **women occupy a disproportionate place in the low-income bracket,** they are more likely to be **exposed to unsafe employment and hazardous work environments.** For example, China is the largest toy producer in the world. Toxic chemicals in the toys harm not only children but also the workers in the factories. A study looking at the exploitation of toy factory workers found that in the two factories studied, the **vast majority of workers were women.**²⁵ However, less than half of the workers were listed on the employer's register. The study reported that in one factory, there was **no protective gear given or disclosure on the chemicals** used to the workers.²⁶ Studies also find a high correlation between exposure to industrial chemicals and birth defects.²⁷
- There is a large **informal economy of waste pickers, dominated by women and children, in Southeast Asia,** who plays a vital role in waste management. However, their **contributions** to the recovery and recycling of valuable plastics are largely **overlooked and unsupported.**²⁸ These waste workers are **exposed to high levels of occupational health and safety risks** by working in unsanitary conditions with limited access to education, healthcare and social services.²⁹
- There is a need to step up the exercise of labour, human rights, and social protection measures that will give dignity and protection to their important work, ensuring that they receive fair benefits from their labour

5. Global outlook

5.1. Consumers

The following are the global consumer trends in 2019 and 2020 found by Euromonitor International, which would have an impact on plastic consumption:

1. **Back to Basics for Status** (2019) – consumers are moving away from overt materialism to simplicity as well from generic to higher quality products
2. **Conscious Consumer** (2019) – consumers are increasingly more mindful in the way they consume a product or service and are more aware of the negative impact that consumption may bring on humans, animals and the environment
3. **Everyone's an Expert** (2019) – consumers are getting increasingly more curious and demand information on the product they purchase and will look for information not only from producers/companies but other sources, including buyers or influencers
4. **I Want a Plastic-free World** (2019) – the push for plastic-waste-free has gained momentum, pushing businesses to improve on their sustainability

²⁴ Women Engage for a Common Future, 2017

²⁵ Women Engage for a Common Future, 2018

²⁶ Ibid

²⁷ Eg. North & Halden, 2013; & Schug & Birnbaum, 2014

²⁸ SEI, 2019

²⁹ Ibid

5. **Proudly Local, Going Global** (2020) – consumers are finding value in home culture and tailored products
6. **Reuse Revolutionaries** (2020) – consumers are finding alternatives to single-use products to reduce environmental footprint and waste
7. **We Want Clean Air Everywhere** (2020) – consumers are advocating for clean cities and a carbon-free world

5.2. *Government & Business*

- Environment sustainability, circular economy, and other related terms such as 3Rs and green economy/development are gaining significant considerations in policy planning in many countries. Some governments have also included Green Public Procurement policy in ministries.
- Pushed by the rising environmental consciousness of consumers, businesses are also rethinking their product lifecycle, applying the concept of circularity.

5.3. *Impact of COVID-19*

The COVID-19 crises affected the plastic waste sector and those projects and initiatives to tackle single-use plastic waste pollution in various ways. Some organisations made changes to their operation processes or changed production patterns, while others increased their social media presence or their social contributions to support their consumers. Our study found that most plastic waste management and collection companies continued to operate without any interruption while following the required health measures, although in some cases, they had to temporarily suspend their activities due to the pandemic situation. Manufacturers also responded to the Covid-19 crises by shifting production and starting to produce protective equipment and sanitisers for medical use. Education and awareness-raising initiatives moved many of their activities online by giving advice on how to maintain a sustainable lifestyle during the quarantine, sharing concerns about the post-Covid era and arranging online sessions on healthy, eco-lifestyle related topics.

Annex 1: Facts & Figures

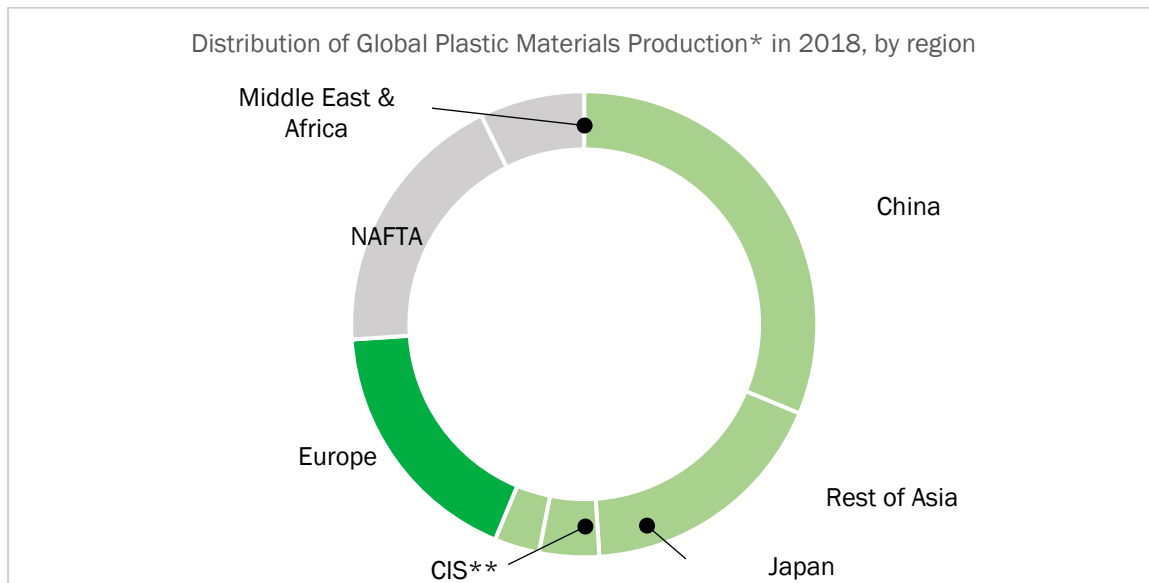
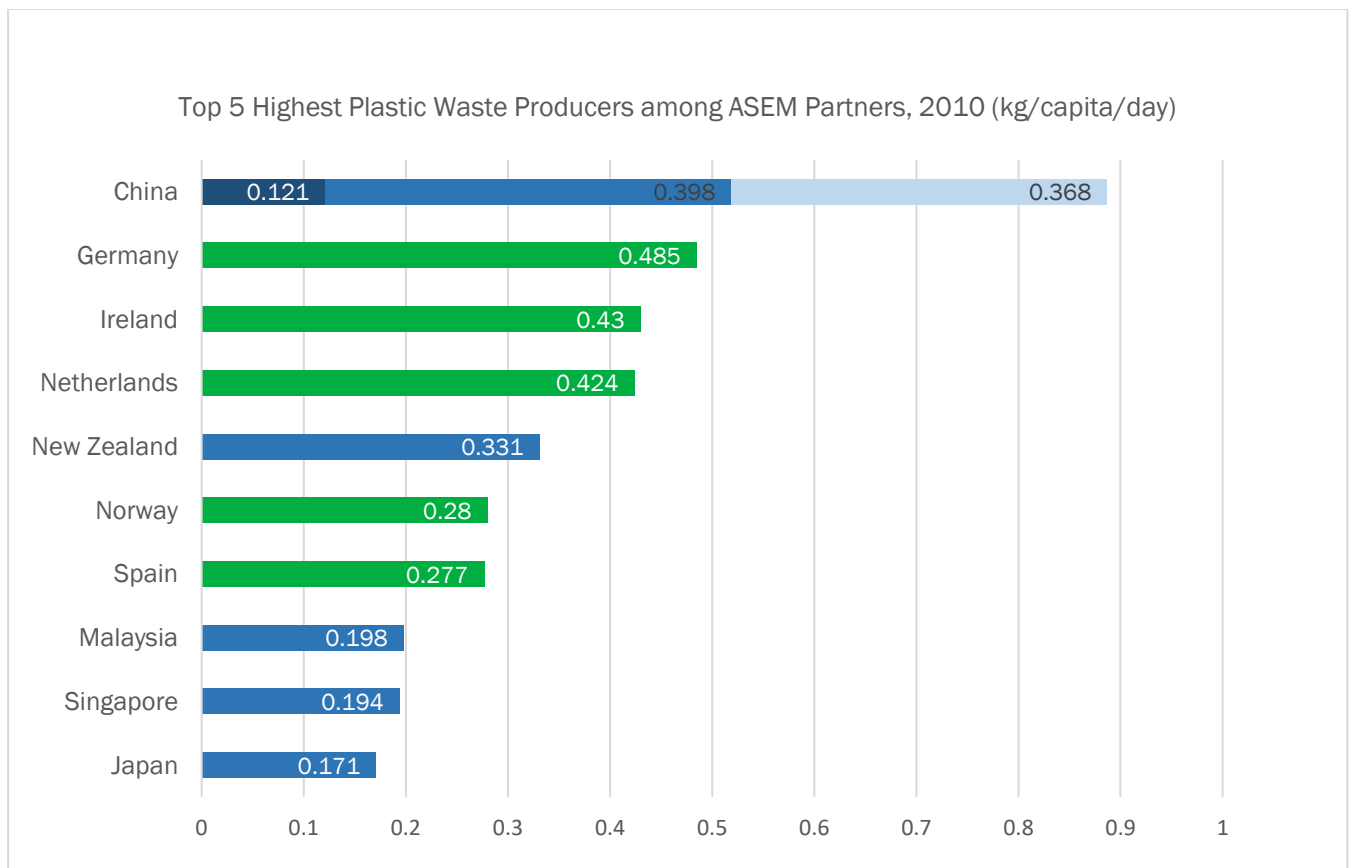


Figure 2 Source: Statista, 2020



*Data from 184 countries. No data available for 3 out of 21 Asian ASEM Partners (namely Kazakhstan; Lao PDR & Mongolia), and 6 out of 30 European ASEM Partners (namely Austria; Czechia; Hungary; Luxembourg; Slovakia & Switzerland)

Figure 3 Source: Adapted from Jambeck et al. (2015)

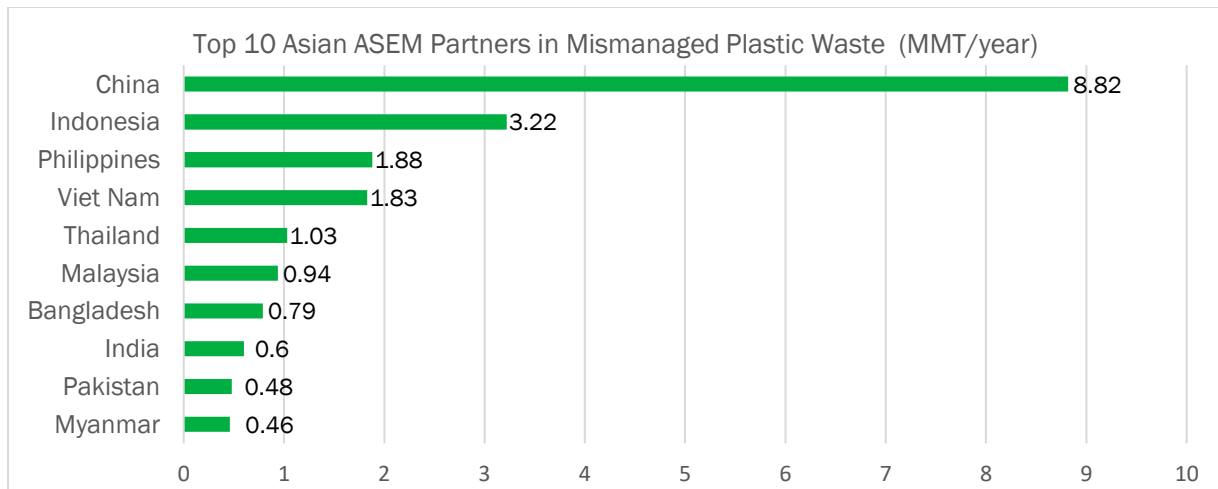


Figure 4 Source: Adapted from Jambeck et al., 2015³⁰

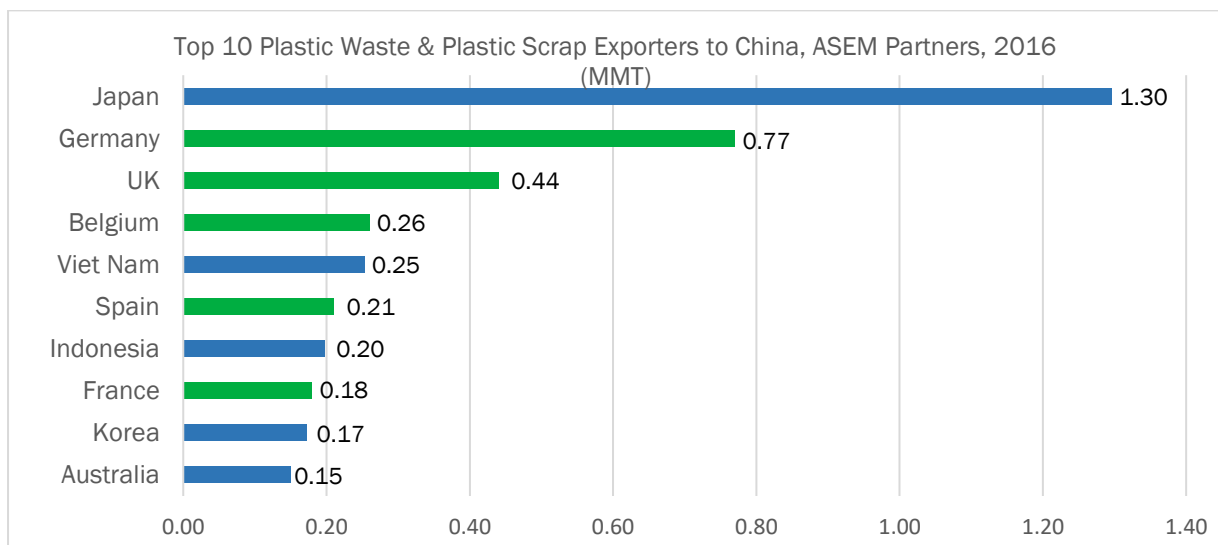


Figure 5 Source: UN Comtrade, 2020

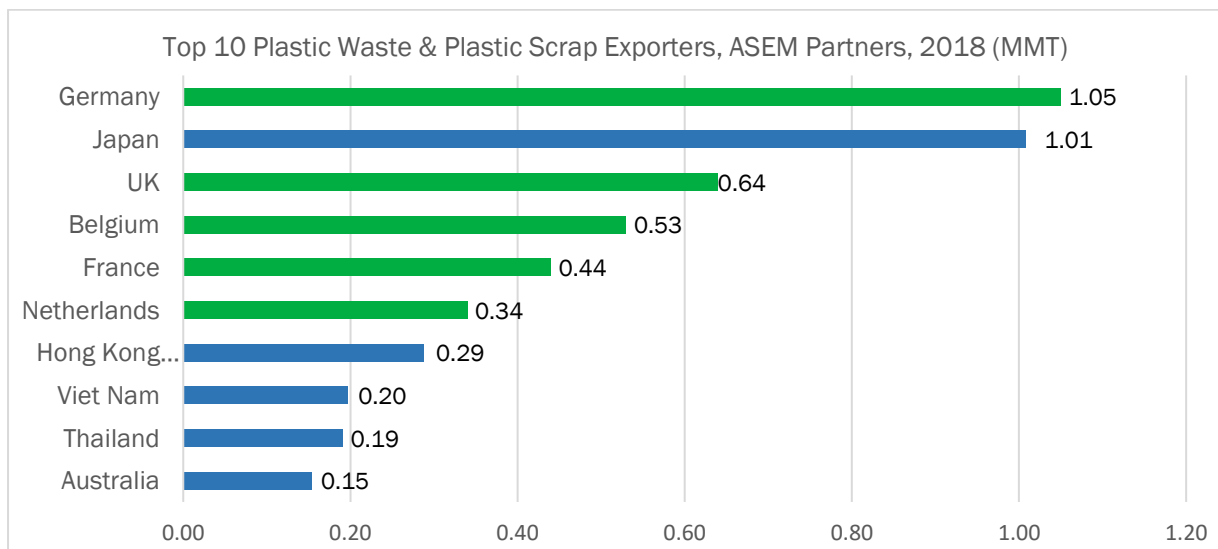


Figure 6 Source: UN Comtrade, 2020

³⁰ 2010 estimates

Table 1: Waste estimates for 2010 for the top 20 countries ranked by mass of mismanaged plastic waste (Jambeck et al., 2015)

Rank	Country	Econ. classif.	Coastal pop. [millions]	Waste gen. rate [kg/ppd]	% plastic waste	% mismanaged waste	Mismanaged plastic waste [MMT/year]	% of total mismanaged plastic waste	Plastic marine debris [MMT/year]
1	China	UMI	262.9	1.10	11	76	8.82	27.7	1.32-3.53
2	Indonesia	LMI	187.2	0.52	11	83	3.22	10.1	0.48-1.29
3	Philippines	LMI	83.4	0.5	15	83	1.88	5.9	0.28-0.75
4	Vietnam	LMI	55.9	0.79	13	88	1.83	5.8	0.28-0.73
5	Sri Lanka	LMI	14.6	5.1	7	84	1.59	5.0	0.24-0.64
6	Thailand	UMI	26.0	1.2	12	75	1.03	3.2	0.15-0.41
7	Egypt	LMI	21.8	1.37	13	69	0.97	3.0	0.15-0.39
8	Malaysia	UMI	22.9	1.52	13	57	0.94	2.9	0.14-0.37
9	Nigeria	LMI	27.5	0.79	13	83	0.85	2.7	0.13-0.34
10	Bangladesh	LI	70.9	0.43	8	89	0.79	2.5	0.12-0.31
11	South Africa	UMI	12.9	2.0	12	56	0.63	2.0	0.09-0.25
12	India	LMI	187.5	0.34	3	87	0.60	1.9	0.09-0.24
13	Algeria	UMI	16.6	1.2	12	60	0.52	1.6	0.08-0.21
14	Turkey	UMI	34.0	1.77	12	18	0.49	1.5	0.07-0.19
15	Pakistan	LMI	14.6	0.79	13	88	0.48	1.5	0.07-0.19
16	Brazil	UMI	74.7	1.03	16	11	0.47	1.5	0.07-0.19
17	Burma	LI	19.0	0.44	17	89	0.46	1.4	0.07-0.18
18*	Morocco	LMI	17.3	1.46	5	68	0.31	1.0	0.05-0.12
19	North Korea	LI	17.3	0.6	9	90	0.30	1.0	0.05-0.12
20	United States	HIC	112.9	2.58	13	2	0.28	0.9	0.04-0.11

*If considered collectively, coastal European Union countries (23 total) would rank eighteenth on the list

Table 2 Source: UNEP, 2019

	EU	JP	BN	KH	ID	LA	MY	MM	PH	SG	TH	VN
General legislative framework												
Municipal Solid Waste (MSW) legislation	✓	✓	✓*	✓	✓	✓	✓	✓*	✓	✓	✓	✓
Marine litter legislation	✓	✓			✓		✓		✓	✓	✓	✓
Anti-litter legislation			✓			✓	✓	✓	✓	✓	✓	✓
Source reduction by design or material restriction	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓
Source separation and collection	✓	✓		✓	✓	✓	✓		✓			✓
National targets for recycling / recovery	✓	✓	✓		✓		✓	✓		✓	✓	✓
Landfill regulations	✓	✓		✓	✓		✓	✓	✓			✓
Waste to energy laws					✓		✓				✓	✓
Extended producer responsibility												
• Legislative framework	✓	✓			✓		✓					
• Reporting	✓	✓								✓		
• Take back requirements	✓	✓			✓		✓					
• Taxes / fees for packaging (excluding plastic bags)	✓	✓										
• Packaging marks and labels	✓	✓								✓	✓	
• Voluntary efforts by industry associations	✓	✓			✓							
Trade policy	✓	✓			✓		✓		✓		✓	✓
Green procurement plan	✓	✓			✓				✓		✓	
Recycled content policy	✓		✓		✓		✓	✓	✓	✓	✓	✓

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*No specific legislation for waste management other than in policy documents

Where EU: European Union; JP: Japan; BN: Brunei; KH: Cambodia; ID: Indonesia; LA: Lao PDR; MY: Malaysia; MM: Myanmar; PH: Philippines; SG: Singapore; TH: Thailand; VN: Viet Nam

Table 2: Major gaps and some of the potential actions in the ASEAN region identified in a report by IGES (Akenji, Bengtsson, et al. 2019)³¹

National-Level	
Gaps	Examples of Potential Actions
<p>Policy and governance (eg. Lack of clarity on mandates, comprehensive frameworks, multi-stakeholder engagement)</p>	<ul style="list-style-type: none"> • Multi-sector industrial working groups • Regular dialogues on PPP • B2B networks on closed-loop solutions • Dialogues between upstream and downstream businesses • Cooperatives linking informal waste collectors and formal collection systems • Requesting producers to propose own designs for EPR systems • Mandating the use of deposit-refund systems
<p>Information and Knowledge (eg. Lack of accessible data, understanding of different types of plastics and their problems, knowledge on merits of different recycling options)</p>	<ul style="list-style-type: none"> • Strengthen national capacity to assess patterns and trends, differentiating between types of plastics and applications for plastics • Conduct assessments to determine priority plastic waste streams • Establish monitoring system • Conduct locally adapted lifecycle assessments of proposed alternatives • Support R&D • Raise public awareness
<p>Technical Capacity (eg. Limited training, lack of infrastructure, low capacity and incentives for innovation)</p>	<ul style="list-style-type: none"> • Assess existing technical expertise, including in academia and private sector • Strengthen capacity to assess the pros and cons and feasibility of various end-of-life technologies • Design capacity development and education initiatives • Develop and promote eco-industrial parks or recycling clusters • Improve separation and collection systems
<p>Markets and finance (eg. Poor access to financing for eco-solutions, lack of shared and widely acceptable technical standards, poor access to markets for recyclables)</p>	<ul style="list-style-type: none"> • Establish technical standards and ensure adoption • Develop technical guidelines • Develop recognised eco-labelling standards • Stimulate domestic demand for recycled plastics • Introduce tax incentives

³¹ For more information please refer to the full report at <https://www.iges.or.jp/en/pub/ce-plastics/en>

Annex 2: References

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