

Marine Plastics

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- What is the issue?
- Why is it important?
- What can be done?

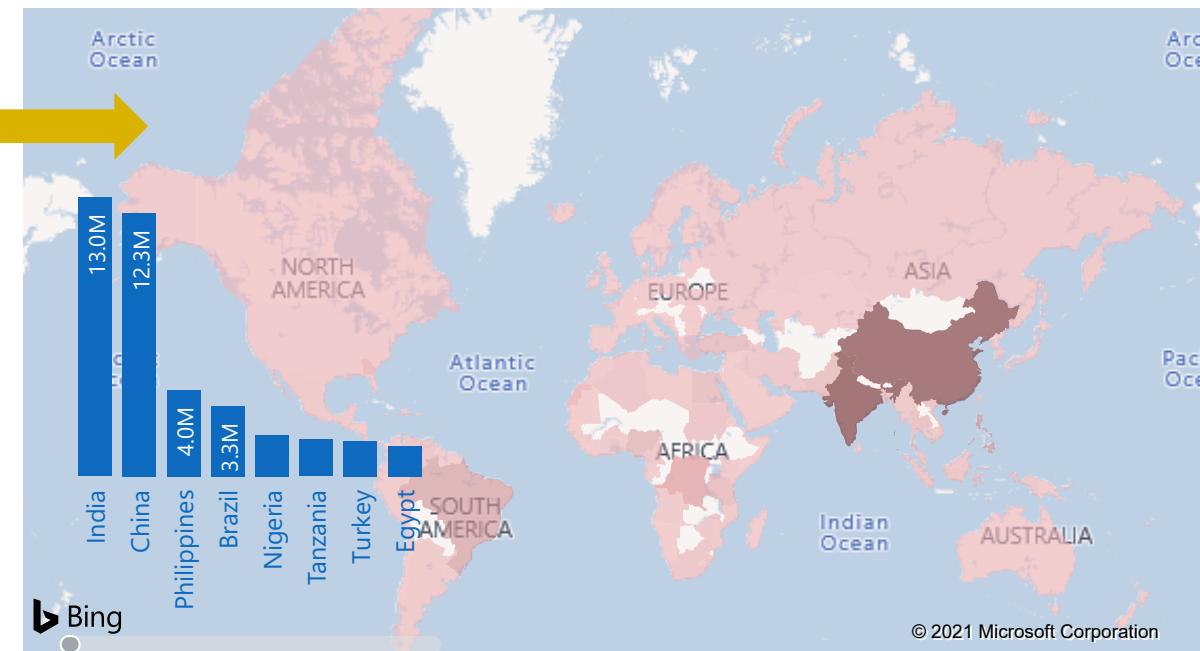
What is the issue?

Plastic is a synthetic organic polymer made from petroleum with properties ideally suited for a wide variety of applications, including packaging, building and construction, household and sports equipment, vehicles, electronics and agriculture. Plastic is cheap, lightweight, strong and malleable. Over 300 million tons of plastic are produced every year, half of which is used to design single-use items such as shopping bags, cups and straws.

At least 8 million tons of plastic end up in our oceans every year. Floating plastic debris are currently the most abundant items of marine litter. Waste plastic makes up 80% of all marine debris from surface waters to deep-sea sediments. Plastic has been detected on shorelines of all the continents, with more plastic materials found near popular tourist destinations and densely populated areas.

Plastic waste in ocean is indeed a big concern! Wonder where all this plastic comes from?

Mismanaged plastic waste (metric tons)



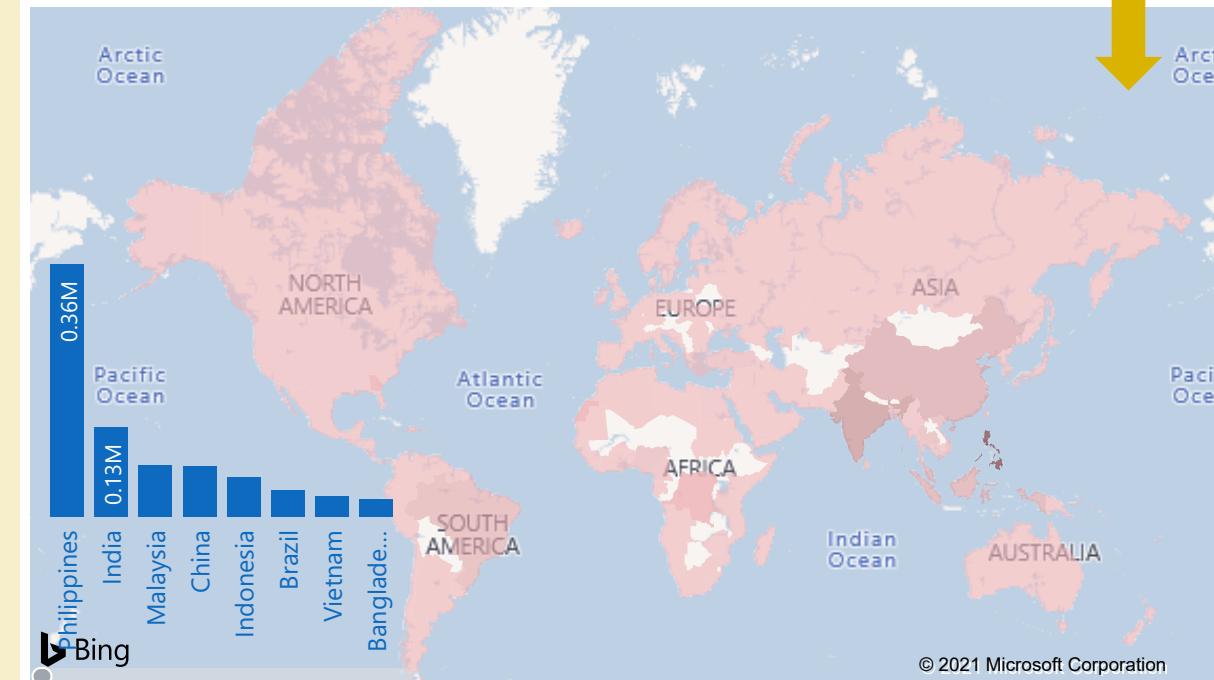
Asian countries specially India, China are mismanaging their plastic waste big time!

It must be these countries then that are emitting this mismanaged plastic waste into the oceans!

Now...what could the reasons be for smaller countries like Philippines, Malaysia and Indonesia to emit more plastic waste compared to other larger countries?

Contrary to what I thought... Philippines, Malaysia & Indonesia are in the top contributors of the plastic waste into the ocean.

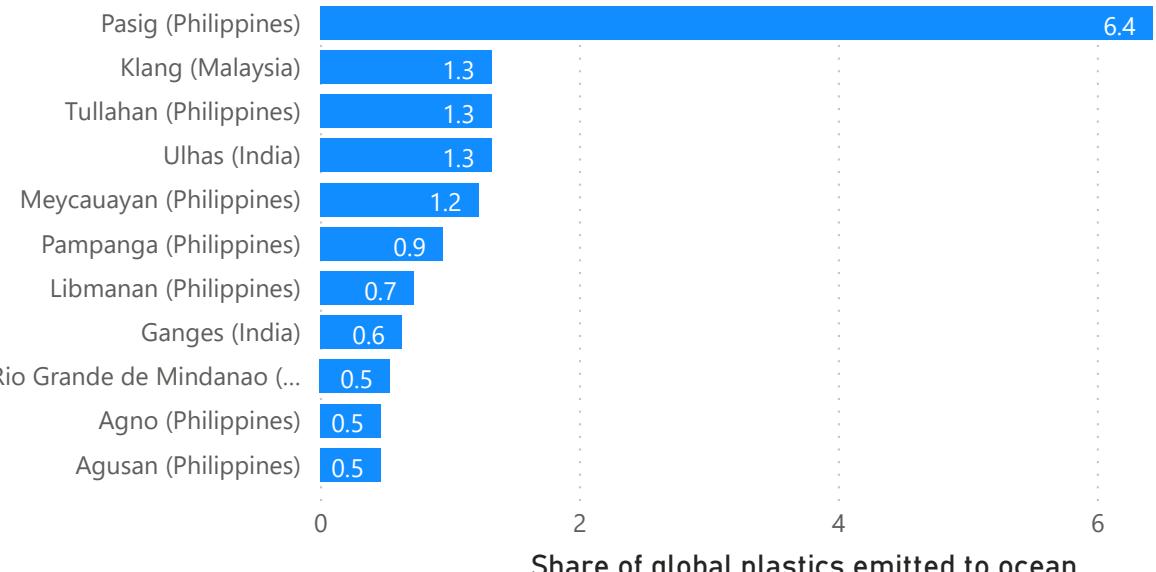
Mismanaged plastic waste emitted to ocean (metric tons)



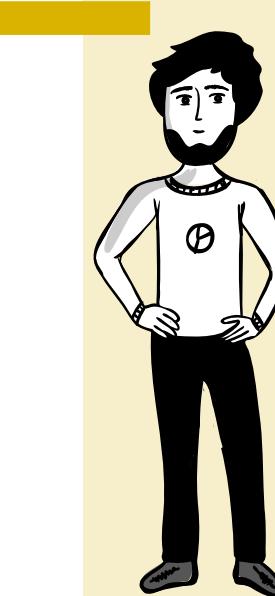
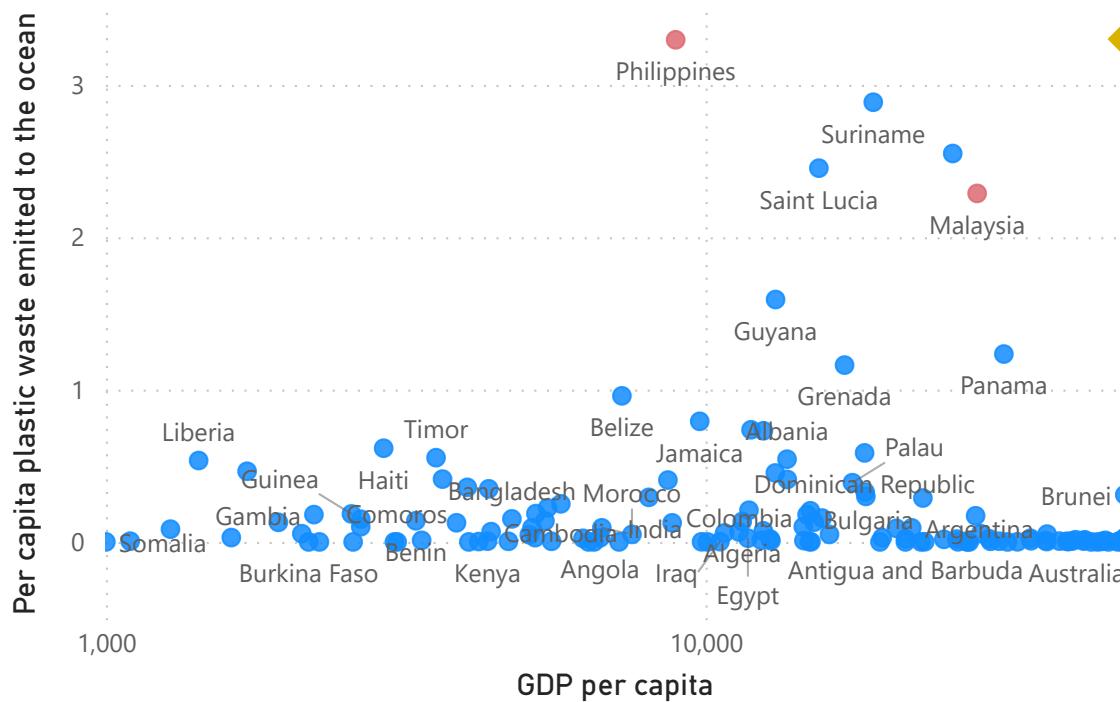


One primary reason is the poor waste management. This leads to more poorly disposed plastic waste entering rivers and subsequently the oceans. The proximity of the cities to the oceans and coastlines further increases the amount of plastic waste entering the oceans

Share of global plastics emitted to ocean via rivers



Plastic waste emitted to the ocean per capita vs. GDP per capita



Contrary to the popular belief that rich countries emit more plastic waste, it is the countries which fall in middle income groups that emit most plastic waste into the ocean.

The reason again is simple - poor waste management practices in these countries!

Though they might be generating more plastic waste, the rich countries have better waste management practices



A black and white illustration of a woman with glasses and curly hair, wearing a white t-shirt and black pants, standing with her hands clasped near her chin in a thoughtful pose. To her right is a light blue speech bubble containing text.

*Ah!! It's clear...the focus then should be to improve the **waste management infrastructure** in these countries so that the plastic waste is collected and disposed appropriately!*

A flow diagram titled "EPR" (Extended Producer Responsibility) illustrating the product lifecycle and waste management process:

- producer or brand-owner manufactures and packages product:** Represented by a factory icon.
- retailers sell the product:** Represented by a person carrying shopping bags.
- consumers purchase the product:** Represented by a person carrying shopping bags.
- Plastic waste generation:** Represented by a truck and a bin.
- Plastic waste disposal by Pyrolysis (funded by producers and brand owners):** Represented by a recycling symbol.
- take back programs: retailer take back, mail-back, collection sites, haulers, local governments:** Represented by arrows pointing from the waste generation back to the producer and brand-owner.

A black and white illustration of a man with a beard and short hair, wearing a white t-shirt and black pants, standing with his hands raised in a thumbs-up gesture. To his right is a light blue speech bubble containing text.

Right!! And maybe we should reduce the usage of the single-use plastic which is the bane of the plastic pollution problem!!

A red circular "prohibited" sign with a diagonal slash over a collection of single-use plastic items, including a plastic bottle, a plastic cup with a straw, a plastic fork, and a plastic knife.