
***Where does our plastic accumulate in the ocean and
what does that mean for the future?***

— By Annabelle Chapman —

What is Plastic Pollution?

- Collection in the environment of plastic products to the point where they create problems for wildlife and their habitats as well as the human population.
- Plastics that act as pollutants for our world are classified into micro (small) meso (medium) and macro (large)



Plastic pollution on a beach

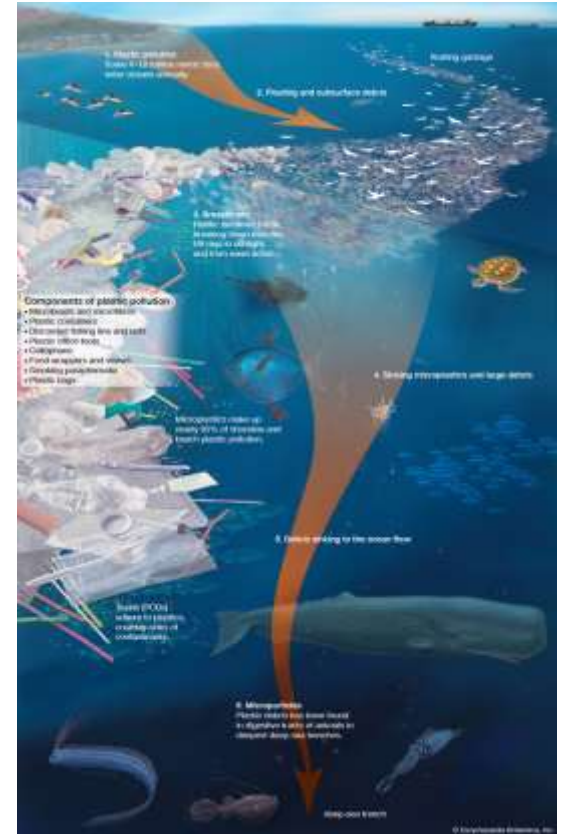
Plastic pollution on the side of the road.



Plastic in the streets of India.

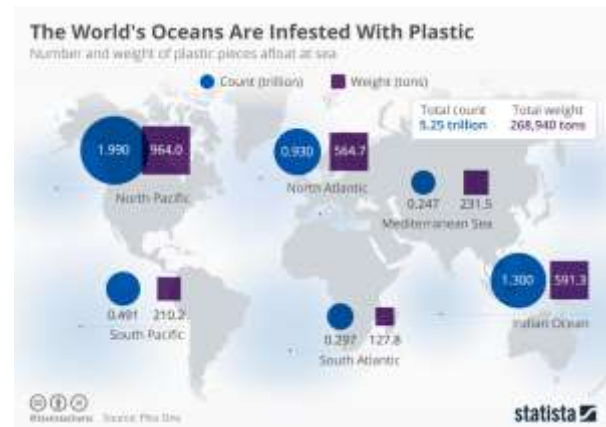
Ocean Plastic Pollution - what is it?

- Ocean plastic pollution is a form of water pollution.
- It's not just the presence of plastics, it's often the pollutants that we cannot see that do the most harm.
- Plastics and polystyrene foam (Styrofoam) comprises 90% of the oceans plastic debris.



Where does ocean plastic pollution come from?

- The main sources of marine plastics are land based, from urban and storm runoff (when it is caught in gutters), sewer overflows, beach-goers, insufficient waste disposal and management, industrial activity/construction, and sadly, illegal dumping.
- Ocean based plastics originate mainly from fishing activity, nautical events, and aquaculture.



How much plastic are we really talking about?

- Between 4.8 and 12.7 million tonnes of plastic pieces are dumped into our oceans yearly. There are approximately 4 billion plastic microfibers per square kilometre of the oceans.
- One whole garbage truck of plastic is dumped into the ocean every minute.
- An estimated 150 million metric tons are actually in the ocean, and 8 million tons enter that every year.



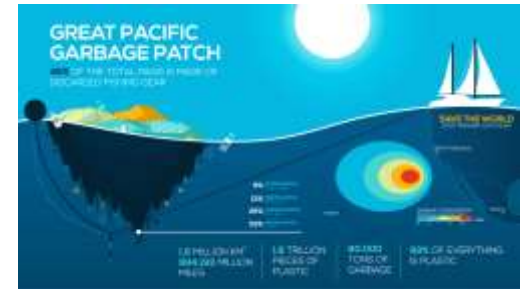
What can be done about ocean plastic pollution?

- Opt for clothing made of cotton, hemp, wool, and other natural fibres as well, and buy pre-loved items as often as possible. The largest proportion of microplastics in the ocean comes from synthetic fibres.
- Buy in bulk whenever possible, and support local markets where majority of the fresh produce is not packaged in plastic. Bring your own reusable shopping bags and containers when shopping.
- Don't buy personal care products that contain microbeads (bits of plastic used as exfoliants). If you must buy personal care items in bottles, get larger sizes. Better still, use bar soap instead.



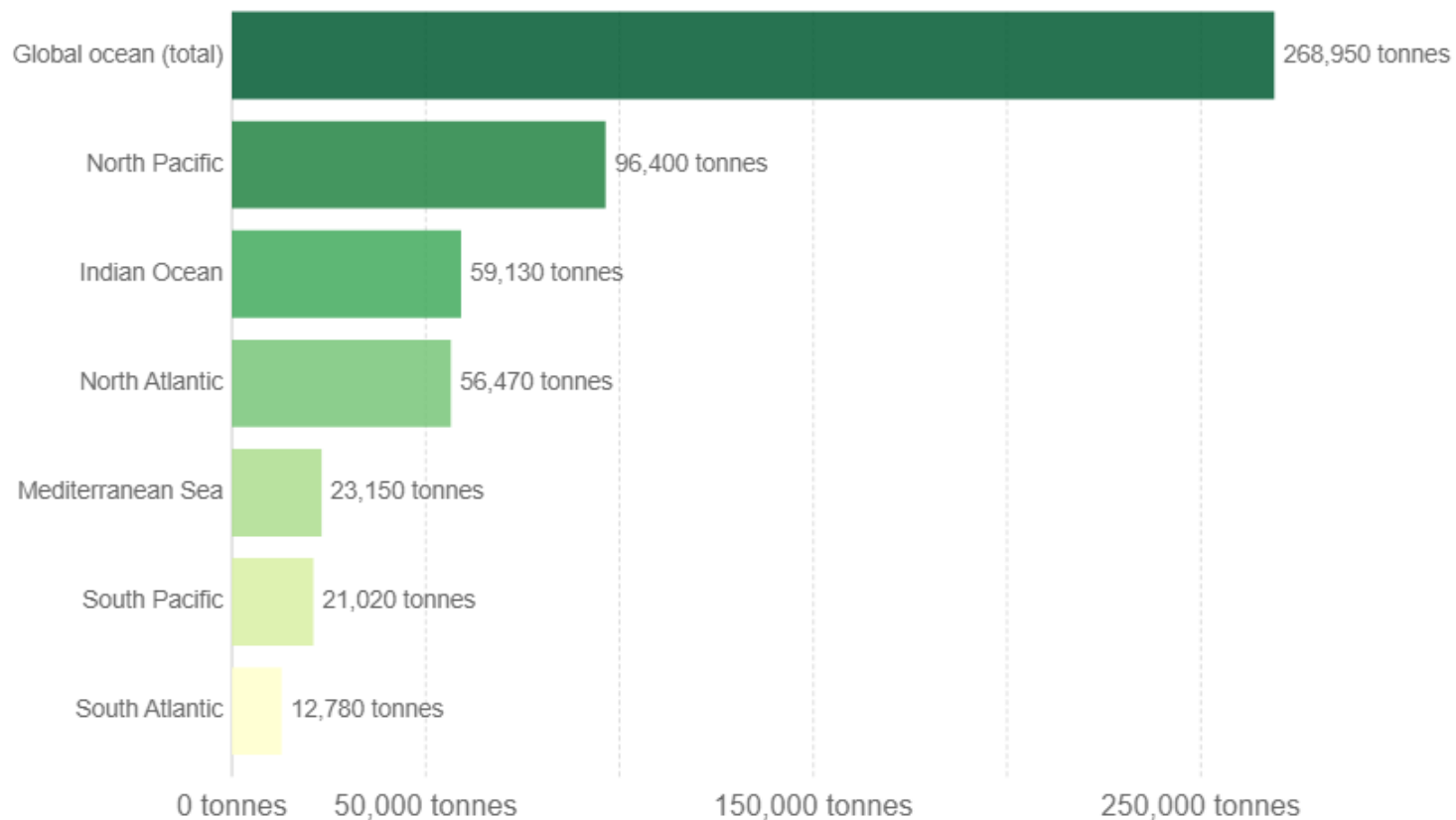
What is the GPGP?

- The Great Pacific Garbage Patch is the largest of five offshore plastic gathering accumulation patches in the Pacific Ocean.
- It is estimated the GPGP covers an area of about 1.6 million square kilometres, three times the size of France.
- Due to seasonal winds and currents, the GPGP's location is constantly changing.
- At the time of a specific sampling, the patch contains about 1.8 trillion pieces of plastic, and it all weighs approximately 80,000 tonnes. These figures are much higher than previous calculations.



Surface plastic mass by ocean basin, 2013

Quantity of plastic waste floating at the ocean surface within each of the world's ocean or marine basins. This is measured in terms of the mass of particles ranging from small microplastics to macroplastics. It includes only plastics within surface waters (and not at depth or on the seafloor).



Graph of Plastics in the Ocean

- On the previous slide, a graph is shown presenting the surface plastic mass by ocean basin (2013).
- It shows each ocean, including the total global ocean, as a representation of how much plastic is surfaced on the top.
- The North Pacific Ocean has the most plastic, which is understandable since that is where the GPGP is located. It has 96,400 tonnes of plastic.
- The ocean with the least plastic is the North Atlantic. It has just 12, 780 tonnes of plastic.

On a personal level, what can you do about the plastics that continue to accumulate in our oceans?

I cannot wave my wand and get rid of every piece of plastic in the ocean, but what I can do is reduce the amount of plastic going in.

- I already use reusable shopping bags when I go shopping with my mum.
- I can find a substitute for cling wrap and use that instead.
- Take a keep cup instead of using single-use coffee cups. My dad gets a lot of coffees during the day.

Spread the word about reducing our use of plastics in our households.

Bibliography

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[Ocean pollution Facts for Kids](#)

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