How Plastic Affects Our Lives

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What is the problem?

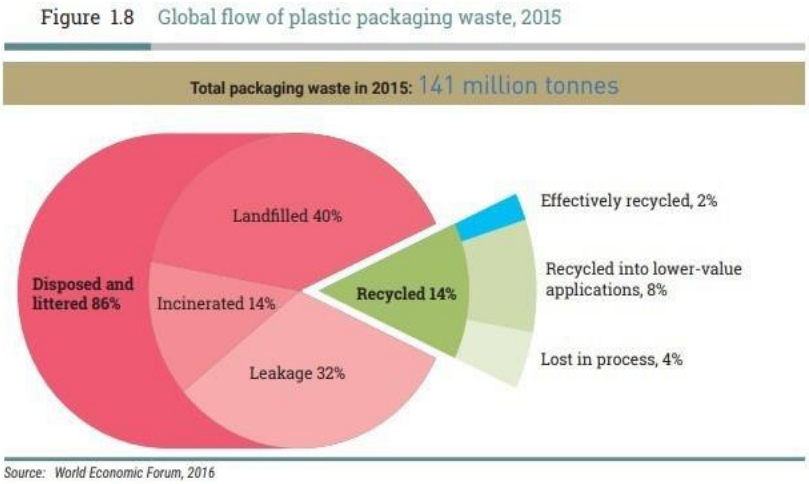
1 Since the 1950's, over 8.3 billion tonnes of plastic has been manufactured, and ***2*** roughly 8 million tonnes of plastic a year escapes into our once beautiful oceans, lakes and canals. Plastic pollution is a global problem we need to deal with, but it's one of many that most people turn a "blind eye" towards. ***3*** Take the Great Pacific Garbage Patch for instance- it covers an estimated area of 1.6 million square kilometres, which is twice the size of Texas, or triple the size of France. It is an astounding figure, and is a problem not just for one person to fix.

How does it link to sustainable development goals?

Plastic pollution links to goal number 14 because "Life below Water" is not just important to the fish who live in the ocean, it is filling our seas with rubbish- plastic cups, bottles, straws and many more. Life below water covers a wide range of animals, from the tiny clownfish to the gentle whale shark, and plastic will kill them if humans do not take action. This problem is not just for a select few to solve; it is for everyone to take part and help.

Why is it bad?

Plastic pollution does not just affect animals- it affects humans and animals alike. ***4*** The average plastic bag is used for about 15 minutes before being disposed of, and can take up to 300 years to decompose. Plastic packaging can suffocate mammals who reside in the oceans and seas and restrain them from breathing, leading to a slow and painful death. ***5*** 52% of all the world's turtles are infamously known to mistake single use plastic bags as jellyfish and then consume them. ***6*** This can result in intestinal blockages, leaving the turtle unable to eat, which in turn, causes starvation. ***7*** If it is sharp plastic that has been consumed, it can sever internal organs.



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9 Once the plastic enters the ocean, the sun, wind and waves break it down into "microplastics" which are extremely tiny bits of plastic which are then swallowed by fish and birds, which lead to their deaths. ***10*** The fish will eventually end up on our plates, with every 1 in 3 fish caught containing plastic. ***11*** This means that for some of us, we are eating plastic every day- about 100 bits of plastic over the course of just one meal on average.

12 When microplastics break down into further pieces, they become "microfibres". ***13*** Microfibres have been found in some drinking water systems and particles are in the air too. Plastic is everywhere now, in our everyday lives, and now in the food we eat, the water we drink, and in the air we breathe. This is why we, as humans need to solve this ever growing crisis.

What can be done to solve the problem?

Instead of harmful plastic bags they sell in shops, we could get biodegradable ones. Scotland have made a start for example in Starbucks, they do not sell plastic straws anymore, and instead sell their biodegradable counterparts. ***14*** In India, the Prime Minister has promised to stop all single-use plastic by this year with a ban in some more rural parts of Delhi immediately.

We can all try using reusable water bottles instead of buying bottles of water- Scottish water is clean and safe to drink. ***15*** Biodegradable seaweed-based packaging is being introduced, and some are even edible! ***16*** As a substitute for the packaging used in egg cartons in Poland, pressed hay is being used instead, and in Thailand, one supermarket has chosen to go plastic-free and have banana leaf and bamboo packaging.

17 In Kenya 2017, there was a law enforced against the usage of plastic bags- one of the toughest laws in the world. Fines of $40000 or being jailed for up to 4 years are issued to Kenyans who produce, sell or even use plastic bags. We can reduce the amount of plastic bags by using reusable cloth bags, and choose not to use plastic straws- we can use bamboo, silicone, or metal ones instead.

18 Students in London have developed a bioplastic made from lobster shells, which is completely biodegradable and is water soluble, meaning that it can dissolve in water. Lobster shell, or rather crustacean shell waste accounts for over 250000 tonnes of the waste the EU produces. The waste is equivalent to about 1600 blue whales. It can be made into many different things- bioplastic bags, wallets and purses, pen pots, and The Shellworks as they have called themselves, have designed new plant pots that self-fertilise the plants. The pot is planted with the plant in the ground, and as it biodegrades, it becomes fertiliser for the plant.

There are so many ways to reduce plastic waste, but we will only make a difference if we can all make a push towards a cleaner, safer future. Even switching off the lights in a room when you aren't using it can make a difference if everyone were to do the same thing.

"There is no question climate change is happening. The only arguable point is what part humans are playing in it." quotes David Attenborough.

Many countries are starting to finally realise what climate change and plastic pollution is doing to our world, are taking action, trying to conserve the natural beauties of Mother Nature, but all the laws, protesters and innovations will not help the Earth unless everyone tries and makes an effort to.

As Barack Obama has stated: "Change will not come if we wait for some other person or some other time. We are the ones we've been waiting for. We are the change that we seek."

Websites used to collect information

1 – https://www.globalcitizen.org/en/content/plastic-pollution-facts/

2 – https://www.nationalgeographic.com/environment/habitats/plastic-pollution/

3 – https://theoceancleanup.com/great-pacific-garbage-patch/

4 – https://www.globalcitizen.org/en/content/plastic-pollution-facts/

5 – https://www.worldwildlife.org/stories/what-do-sea-turtles-eat-unfortunately-plastic-bags

6 – https://www.worldwildlife.org/stories/what-do-sea-turtles-eat-unfortunately-plastic-bags

7 – https://www.worldwildlife.org/stories/what-do-sea-turtles-eat-unfortunately-plastic-bags

8 – https://www.weforum.org/agenda/2018/06/how-the-world-is-fighting-plastic-pollution/

9 – https://www.nationalgeographic.com/environment/habitats/plastic-pollution/

10 – https://www.sas.org.uk/our-work/plastic-pollution/plastic-pollution-facts-figures/

11 – https://www.globalcitizen.org/en/content/plastic-pollution-facts

12 – https://www.nationalgeographic.com/environment/habitats/plastic-pollution/

13 – https://www.nationalgeographic.com/environment/habitats/plastic-pollution/

14 – https://www.weforum.org/agenda/2018/06/how-the-world-is-fighting-plastic-pollution/

15 – https://learn.eartheasy.com/guides/the-best-eco-friendly-alternatives-for-the-plastic-in-your-life/

16 – https://learn.eartheasy.com/guides/the-best-eco-friendly-alternatives-for-the-plastic-in-your-life/

17 – https://www.globalcitizen.org/en/content/plastic-pollution-facts/

18 – https://www.businessinsider.com/lobster-shells-plastic-biodegradable-recycle-single-use-waste-2019-5?r=US&IR=T