Plastic: A problem of excess.

Plastic. It's a world-wide possession, and unfortunately now something of an unhealthy obsession. Since its widespread inception into modern manufacturing in the 1950s, the use of plastics in our globalised society has only but increased; we simply can't get enough of it.



The upcoming COP-26 aims to find workable solutions to the emissions crisis and develop ways to push sustainable development for a cleaner world. One subject often little discussed in this field is plastic; not only is its single-use culture damaging for our society, but a significant problem we need to find a solution for in order to combat the climate crisis.

For products that have even been shown to be used for a single second, the long-term impacts are huge. From every moment excluding the point of utility, plastic is catastrophic for our environment, it's not simply an issue of saving turtles from plastic bags.



Nearly two thirds of crude oil from the petrochemical sector is used for plastic manufacturing¹, a process by which extracting, transporting, and manufacturing those fuels creates billions of tonnes of greenhouse gases. It is also the way we discard it as well – by 2050, emissions from plastic incineration could be as high as 2.5 billion tonnes² – worsening global warming and air pollution with

serious consequences for human health, with the hardest hit inevitably found in low-income countries.

So what can be done for our plastic addiction?

Clearly something must shift in order to achieve our COP-26 goals. However, the question of how we go about reforming a \$1.2 trillion industry³ is crucial. Even despite current environmental pressures, the production of virgin plastics continues to grow.



And in this regard, it should be no surprise. Plastic fuels global commerce, from the packaging of goods to product construction, the highly durable and useful properties of this versatile material make it invaluable. Consequently, it is important to acknowledge that plastics will continue to play a significant role in our world, and we should therefore encourage behaviours of reusing and recycling in order to curtail virgin plastic consumption.

Nevertheless, it is vital for governments and institutions of power to incentivise sustainable solutions and innovation in order to create a technological revolution; whether that be for plastic substitutes, or for a cleaner economy that prioritises the people over profit.

A question of responsibility

The idea of accountability for the management of plastics in our world is a contentious subject and one that draws a great variety of approaches. While it is correct to assume that these approaches are often defined by the level of infrastructure and development found in a region, there are some that are anomalies in this pattern.

Broadly speaking, westernised countries, particularly in Europe, have the highest standards of recycling in the world. Denmark is one such country, where waste is regarded as a valuable resource and where in 2019, 92% of all plastic bottles and cans were recycled⁴. Other countries such as Germany developed sophisticated recycling systems whereby fines of up to 2500€ can be issued for non-compliance. In these countries it is important to note that the recycling of plastics and other waste is seen as a public obligation to participate in a state provided system.

In contrast, the approach to recycling in Dharavi (one of India's largest slums found in Mumbai) is one of opportunistic economics; an average daily wage of 80p and flexible worker's rights makes for a system capable of recycling a level of waste unparalleled by any other on a similar scale. 15,000 factories dedicated to recycling provide employment for almost 250,000 people to recycle 80% of Mumbai's solid waste⁵, a megacity of 15.5 million people in western India. Meanwhile, Singapore is attributed with having the third best waste management system in the world, yet in comparison only recycles 60% of its solid waste⁶ for a country of just 5.7 million people.

Unfortunately, it is in the USA, a nation said to be one of the most developed countries in the world that utterly fails on recycling; it generates far more waste and recycles far less of it than any other developed country. For the USA, it is a problem of excess; where a highly consumerist society fuels standards of commercial practice wildly unsustainable for planet Earth. In fact, if we all lived like the US population we would need 4 planets to make everything they consume⁷.



However, some countries seen to be statistically progressive with their stance on plastic recycling often hide a dark truth. It is now common practice for governments to assign recycling obligations to corporations, whereby waste materials and packaging are exported abroad to processing plants across the world – yet a lot of this does not end up where it's supposed to.

For years, countries in the far-east have become a dumping grounds for wealthier nations to dispose of unwanted plastics. Countries such as the UK, Australia, and the USA all illegally ship waste under the pretence of 'to be recycled' yet is often destined to end up as landfill in countries such as Malaysia⁸ and the Philippines, after China began to put in place measures to stop this in 2017⁹.



This creates a perpetuating feedback loop, as sunlight and heat cause vast amounts of accumulating plastic to release powerful greenhouse gases, increasing the global temperature and consequently the rate of climate change¹⁰.

Thoughts on a solution

We know that due to our actions, there's no 'silver bullet' to eradicating plastic's global presence; it's here to stay for a long time still. What is vital is that we all recognise our shared duty to fixing that problem. Whether that be lobbying multi-national corporations to take greater responsibility for the waste they produce; encouraging governments to impose and achieve ambitious targets; supporting the work of charitable organisations; and most importantly taking an active role ourselves in knowing where our plastic ends up and what we can do about it.

- 1. Financial Times "https://www.ft.com/content/281addec-2ed9-11e9-80d2-7b637a9e1ba1"
- 2. WWF "<u>https://www.wwf.org.au/news/blogs/plastic-waste-and-climate-change-whats-the-connection#gs.gplciz</u>"
- 3. Plastics Today "<u>https://www.plasticstoday.com/business/global-market-plastic-products-reach-1175-trillion-2020</u>"
- 4. State of Green "<u>https://stateofgreen.com/en/partners/state-of-green/news/record-breaking-year-for-danish-recycling-92-per-cent-of-bottles-and-cans-returned-for-recycling/</u>"
- 5. GITNB "https://bit.ly/3ieydbh"
- 6. NEA of Singapore "<u>https://www.nea.gov.sg/our-services/waste-management/waste-statistics-and-overall-recycling</u>"
- 7. BBC News "https://www.bbc.co.uk/news/magazine-33133712"
- 8. CNBC "https://www.cnbc.com/2019/05/29/malaysia-to-send-back-plastic-waste-to-foreignnations.html"
- 9. National Geographic "https://on.natgeo.com/2G1nwMk"
- 10. WWF "<u>https://www.wwf.org.au/news/blogs/plastic-waste-and-climate-change-whats-the-connection#gs.gplciz</u>