

## Research Report

Committee: Ecology and Environment

Topic: The question of reducing single use plastics

### Introduction:

In the last year the issue of plastic pollution has become recognised as a global environmental issue, with the UN creating a report on how to ensure sustainability for the world whilst the use of plastics still takes place. However, there are huge challenges in tackling plastic pollution as it travels through countries spreading the problem and many developing countries use plastic as a cheap, durable material in which there aren't other cheap alternatives. In addition the world wide obsession with plastic is due to its many benefits increasing the difficulty on reducing usage as plastic is a diverse material. Experts believe that over 50% of plastics are used singularly and only 9% of plastic waste can be recycled highlighting the need for action to be taken to tackle the significant harm which plastic pollution is having on the world.

### Definition of Key Terms:

**Plastic-** A synthetic material made from a wide range of organic polymers such as polyethylene, PVC, nylon, etc., that can be moulded into shape while soft, and then set into a rigid or slightly elastic form.

**Single use plastics (disposable plastics)-** Plastics which are used once before they are thrown away or recycled.

**Recycle-** The process by which a substance can be converted in to a reusable material.

**PVC (polyvinyl chloride)-** This material is the most commonly used plastic material which is non-recyclable and harmful to human health.

**Environmentally friendly-** A material which isn't harmful to the environment.

**Polymer-** A substance which has a molecular structure built up chiefly or completely from a large number of similar units bonded together.

**Plastic pollution-** This is the accumulation of plastic objects in the Earth's environment that adversely affects wildlife, wildlife habitat and humans.

**Biodegradable-** A substance capable of being decomposed of bacteria or other living organisms and thereby avoiding pollution.

**Polychlorinated Biphenyls (PCBs)**- This is a plastic which has many negative impacts for human health and was widely used before it was banned in 1979. It most commonly causes liver, thyroid and reproductive issues.

**Transnational Corporation (TNCs)**- Is a large company which operates in multiple countries.

### Contextual Information:

After the first commercial use of plastic in 1907, the world has not been well regulated over the disposal of plastics, which are not biodegradable, (they simply break down into smaller pieces known as microplastics) and pollute the land and marine life. Now the world has nine billion tonnes of plastic waste, many which ends up in oceans, landfills and the environment, highlighting how action needs to be taken to ensure a world which is not contaminated by human pollution. Plastic bags, a common plastic found in landfill sites, take thousands of years to decompose and whilst they do this they leak chemicals into the surrounding soil or water. Moreover, the chemicals used to produce certain plastic products are toxic and often find their way into animal and human tissue which can cause damage to the lungs and nervous system. Since the 1990's plastic production has tripled meaning that over 150 million tons of plastic are now found in the ocean. This poses a massive threat to marine wildlife where turtles, seals and whales starve to death after they mistakenly consume plastic, or when plastic entangles and traps fish. 100 million marine mammals are killed each year from plastic pollution, many of which are endangered or due to the increased plastic pollution have become so. However, there is growing concern as each year 8 million tons of plastic continues to enter the oceans which without action could see the amount of plastic to outweigh the amount of fish by 2050. Furthermore, even if plastics are recyclable they require energy intensive processes which have further negative impacts on the environment including increased carbon emissions contributing to global warming, and with experts suggesting that in 30 years time 15% of carbon emission will come from plastic production, there is a growing concern over the lack of action which is being taken by international organisations. 90% of energy used to produce plastic is created from fossil fuels, further conveying the negative implications from this cheap and widely used material. In October 2018, the EU passed legislation which would ban plastic straws, plates and 90% of plastic bottles by 2025. Even some TNCs such as McDonalds and the Hilton Hotel have made efforts to reduce plastic consumption with McDonalds decreasing pollution from plastic straws by a billion. However, has the world left it too late due to the huge economic cost countries also face to attempt to remove the plastic pollution from the environment, with the average US taxpayer paying \$88 annually on removing plastic bag waste. This further shows how a reduction in single use plastics is necessary for the world due to the horrendous impacts on wildlife, the issues of contamination of plastic which may cause harm to human health and the other social implications including wildlife extinction.

## Major Countries and Organizations Involved:

**Greenpeace**- An NGO stationed in over 39 countries, it aims to conserve the environment and promote peace.

**World Wild Fund (WWF)**- This is an international non-governmental organization founded in 1961, working in the field of the wilderness preservation, and the reduction of human impact on the environment.

**United Nations Environment Programme (UNEP)**- As an agency of the United Nations, they coordinate the organization's environmental activities and assists developing countries in implementing environmentally sound policies and practices.

**Global Environment Facility**- This was established on the eve of the 1992 Rio Earth Summit to help tackle our planet's most pressing environmental problems.

**European Environment Agency (EEA)**- This is an agency for the EU which provides information on the environment, with goals to help those who are developing, implementing and evaluating environmental policy and to inform the public.

## Timeline of Events:

### **Date: Event:**

**1st June 2008**- China bans plastic bags in the hope of reducing oil consumption by 6 million tonnes.

**2008**- EU, Turkey and Canada all banned BPA (Bisphenol A, which is a chemical found in some plastics) in baby bottles due to the harmful side effects linked to the chemical including affecting the brain functioning correctly.

**2011**- Australia banned plastic bags which has eliminated a third of Australian plastic waste.

**October 2015**- UK introduced the 5p charge for plastic bags which has reduced the plastic bag consumption in the UK by over 80%, saving £60 million in cleaning up litter and £13 million in carbon savings.

**2017**- Kenya ban plastic bags and implement large punishments (fines or prison sentences), should this not be followed in a bid to protect their fishing and agricultural sector.

**2018**- The UK Plastics Pact begun where the UK government alongside NGOs collaborate in a bid to eliminate single use packaging by 2025, companies who have joined include Coca Cola and Aldi.

**October 2018-** The EU bans all plastic bags, straws and 90% of plastic bottles by 2025 which was passed with 571 votes for and 53 against.

### **Relevant UN Treaties and Events:**

**5 June 2018-** The UN publishes its first report on the extent of plastic pollution, with a ten-step plan for governments to follow to decrease plastic usage.

**2018-** UN Environment launches the #CleanSeas campaign to end marine litter, with aims to stop wasteful use of single use plastics by 2022. 10 countries have already joined the campaign including Uruguay, Costa Rica and Indonesia.

### **Possible Solutions:**

Although many are calling for an international Treaty similar to the Paris Climate Change Conference to be made, there is huge successes from the countries which have enforced bans on certain types of plastic, such as Kenya and Australia, suggesting that firm enforcement is needed to ensure successful and effective action. Further action often results from plastic bag bans such as in Antigua and Barbuda where food plastic containers and plastic containers are now also banned. However, this can be time consuming and costly for governments when there are also substantial impacts from public awareness which can already be seen by the effort made by the UN and other international organisations in recent years to highlight to the people how harmful plastic is to the environment. This means that there are multiple options for governments to appreciate including promotion of alternative eco friendly products, subsidizing plastic free goods and educating the population which would all help to decrease the amount of plastic consumed. Moreover, there are many alternative materials which can replace plastic including wooden cutlery, metal straws and glass bottles as well as the fact that there is large amounts of scientific research into plastic alternatives, by encouraging plastic alternatives or investing into the research, governments could solve some of the issues associated with overconsumption of single use plastics. Ultimately, is a Treaty needed to ensure cooperation from all countries, and are the small steps which individual governments are taking effective enough to save the world from the issue of plastic pollution?

### **Bibliography**

**GreenPeace information page-**

<https://www.greenpeace.org.uk/what-we-do/oceans/plastics/>

**WWF information page-**<https://www.wwf.org.uk/updates/plastics-why-we-must-act-now>

CAMMUN 2019 – Ecology and Environment – The Question of Reducing Single Use Plastics

**UNEP information page-** <http://web.unep.org/unepmap/un-declares-war-ocean-plastic>

**Global Environment Facility marine plastics page-**

<https://assembly.thegef.org/content/marine-plastics>

**UN Plastics page-** <https://news.un.org/en/tags/plastic>

**European Environment Agency plastic articles-**

<https://www.eea.europa.eu/signals/signals-2018-content-list/articles/close-up-2014-an-ocean>