

**Committee:** Environment

**Topic:** The question of implementing measures to eliminate single use plastics

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## Summary

Single use plastics are useful and have several benefits, but the amount of plastic waste is rising rapidly. It is predicted that by 2050 there will be around 12 billion tonnes of plastic in landfills and in the environment, globally. Not only does this create problems around how to manage the waste generated, it impacts the environment, economy and the human health.

This research report will aim to give a thorough understanding and inform about single use plastics and their effects – but also provide ideas about measures which can be used to tackle the issue, or ways in which single use plastics can be eliminated.

## Definition of Key Terms

**'Implementing measures'** – putting a procedure or plan into place which will achieve a particular outcome. An example of 'implementing a measure' would be charging a tariff on all plastics.

**Plastic** – a synthetic, lightweight material which can be shaped in many ways, made from organic polymers.

**Single use plastics** - plastics that are used only once, before they are thrown away or recycled. They can be referred to as disposable plastics, and are used for plastic packaging, food packaging, straws and cutlery. Grocery bags and plastic bottles may also be regarded as single use plastics.

**Microplastics** – the small fragments that plastics photodegrade (slowly break down) into. Plastics do not rust or corrode, and most do not biodegrade.

## Background Information

Single use plastics can have several impacts on the environment, on the economy, and on human health (a list can be found at the end).

Plastics have several benefits – they are hygienic, lightweight, flexible and durable. More importantly, they are cheap and easy to make. As a result, they have uses in several industries, and are used widely in packaging (a list can be found at the end).

Since the 1950s, the production of plastic has been rapidly increasing. The production of plastic will continue over the next several years, and the amount of plastic waste generated is unmanageable. 9% of the 9 billion tonnes of plastic made has ever been recycled. This is an issue which needs to be tackled, but cannot be done without the help of governments, businesses and individuals.

Most plastic is designed to be thrown away after one use. Hence, plastic packaging accounts for half the plastic waste in the world. Most plastics do not biodegrade, but slowly break down into smaller fragments known as microplastics. Plastic waste causes a vast number of problems when it enters the environment. Plastic has been found blocking the breathing passages of several species, both on land and in water. This is because animals may mistake plastics for food.

After a plastic is used once, it is recycled, landfilled, incinerated, or dumped into the environment. Although measures like burning the plastic reduce the waste, they release greenhouse gases, and contribute to the greenhouse effect.

More facts to put this into perspective:

- There are 5.25 trillion pieces of plastic debris in the ocean.
- People use approximately 500 billion single use plastic bags per year. This is about a million bags every minute across the globe, or 150 bags a year per person on earth.
- 100,000 marine creatures die from plastic entanglement a year, and this number includes only the ones that are found.
- Approximately 1 million sea birds die from plastic a year.
- It takes between 20 and 1000 years for a plastic bag to break up, and that means for it to turn into smaller pieces.

Impacts of plastic:

Environmental – Plastic ends up in the ocean pollution, leads to loss of biodiversity.

Economical – Tourism industry suffers, plastic is visually unappealing. It costs €630 million a year to clean plastic waste from the beaches and coasts in Europe.

Human health – Humans may ingest microplastics from animals which were once in the sea. For example, fish may contain microplastics ingested by mistake, and humans may eat these fish.

Microplastics may have severe impacts on the human health. As well as this, water can be contaminated, and toxic fumes are released when plastics are burned. Both impacts can cause harm to health.

The above impacts can have several knock-on effects, but the main issues are listed above.

Where single use plastic is used:

Plastic bags, straws, plastic bottles, plastic packaging.

Anywhere if the plastic is to be discarded after one use.

## Major Countries and Organizations Involved

Several countries are involved with this issue, and may have taken action in the form of enforcing new regulations or laws.

From 2015 in England, £0.05 extra was charged for every plastic bag sold, in an attempt to reduce the number of plastic bags. The number of bags being used dropped by over 85% in the six months after the tax was introduced.

From 2017 in Antigua and Barbuda there was a national ban on Styrofoam (a single use plastic), and from 2018, there was a ban on plastic utensils, like spoons and straws.

From August 2017 in Kenya, anyone found using, producing, or selling a plastic bag can face a \$38,000 fine or up to four years in jail.

Several other countries may have attempted something similar. However, for some, the impact was limited due to poor enforcement of the law. Eg. in countries like , (LEDCS and countries with corrupt governments), it may be easier for certain people to illegally distribute plastic bags, even after they have been banned.

Many organisations involved may be smaller scale groups, who aim to educate and raise awareness of the issue via digital means, eg. social media pages or websites. It must be noted also that these organisations may not have sufficient power to enforce new regulations, and instead rely on raising awareness or promoting certain ideas.

Clear Blue Sea, an NGO (non-governmental organisation) uses a floating robot which helps clean up debris from the sea. A significant amount of the plastic waste would come from single use plastics. The robot uses renewable energy and can help rescue animals trapped in debris.

Friends of the Earth is an organisation which is attempting to reduce plastic pollution. They promote #PlasticFreeFriday, where followers can avoid using plastic once per week, and possibly more than that. Although this is mostly once a week, it can still make a huge difference to the environment. This is a good example of raising awareness to combat the issue.

## Timeline of Events

11-15<sup>th</sup> March, 2019 – 170 countries agreed to ‘significantly reduce’ the use of plastics by 2030.

See <https://www.nationalgeographic.com/environment/2018/07/ocean-plastic-pollution-solutions/> for a more detailed list of all relevant events. It includes countries placing regulations, etc.

In 2015, England introduces an extra fee on plastic bags, which reduces their use by over 85% in the following months.

In 1980, most supermarkets began to use or were using plastic bags.

There are several events in the timeline of plastic, the ones given above are just a few examples which may be useful.

## Relevant UN Treaties and Events

March 2019 – The European Parliament voted to ban some single use plastics. A ban on single use plastics will come into force by 2021 in all EU member states. Plastic bottles should be made of 25% recycled content by 2025, and 90% of them should be recycled.

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## Previous Attempts to solve the Issue

Attempts to solve the issue have been carried out in the form of passing laws or regulations. This works more for some than it does for others.

Bans have been placed on plastic utensils and Styrofoam, even plastic bags. Plastic bags have been banned in states in Australia and India. Several other countries have done the same and several more are planning to do so, like Germany.

Like described, the extra charge of £0.05 on plastic bags in England resulted in their use decreasing by over 85% in the following six months. Although not a complete ban, it still reduced the number of plastic bags being disposed of.

Although this may not end the plastic waste issue completely, several groups and organisations around the world voluntarily clean plastic from their areas. Other attempts include raising awareness about single use plastics.

It must be said that it will take many years for the issue to be solved completely. Whilst most of the issue can be combatted, it is hard for single use plastics to be eliminated completely. For example, people may still be able to sell plastics illegally, etc.

See 'Major Countries and Organisations Involved' for more examples of attempts being made to solve the issue.

See below as well, as some of the ideas described may already be in use or in implementation around the world.

## **Possible Solutions**

The issue of single use plastics can have a wide variety of solutions, from placing a ban, to something as simple as raising awareness.

Enforcing a ban upon the production/use/sale of single use plastics and/or plastics. (This can vary for different thicknesses of bags, sizes, etc.)

Raising awareness, eg. through multimedia campaigns.

Implementing a system where extra has to be paid for single use plastics.

Promoting alternatives to single use plastics.

Reducing your own use of single use plastics. For example, if a country actively promotes initiatives to reduce the use of single use plastics, and the UN notices a decline in the amount of plastic waste, incentives can be given to the country.

Organising beach/river clean-ups, where plastic waste can be collected and stopped from entering the seas.

Providing incentives to large organisations/companies who do not use single use plastics, and raise awareness, etc.

Providing incentives to countries who reduce the number of single use plastics.

## Bibliography

[https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic\\_sustainability.pdf?isAllowed=y&sequence=1](https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf?isAllowed=y&sequence=1)

The above is a useful link which will help in gaining a good understanding of single use plastics. It also contains several important facts which can be used.

<https://www.nationalgeographic.com/environment/2018/07/ocean-plastic-pollution-solutions/>

This link contains many events regarding plastic pollution and the latest on what countries are doing about the issue.

<http://www.plasticfreechallenge.org/what-is-single-use-plastic>

This has a general overview of single use plastics. It is also a good example of raising awareness about plastics.

<https://friendsoftheearth.uk/plastics>

This is an excellent link with well written and detailed information about the issue. It is a great example of educating people about single use plastics. They are also attempting to pass a new law.

<http://oceancrusaders.org/plastic-crusades/plastic-statistics/>

This link has some informative facts and statistics to help understand just how much plastic is used, and the impacts it has.

<https://www.nationalgeographic.com/magazine/2018/06/plastic-planet-waste-pollution-trash-crisis/>

<https://www.earthday.org/2018/03/29/fact-sheet-single-use-plastics/>

<https://www.greenpeace.org.uk/9-ways-reduce-plastic-use/>

<https://www.independent.co.uk/topic/single-use-plastics>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/752091/Plastics\\_factsheet\\_web.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752091/Plastics_factsheet_web.pdf)

<https://www.bbc.co.uk/news/topics/c6lpgw300llt/plastic-pollution>

The above are all general links surrounding the issue. They contain relevant facts and news regarding plastics.

