

## Single Use Plastic: Paving Way to Environmental Protection or Economic Crisis

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### SUMMARY

Plastic is a ubiquitous material used in various industries, including furniture, clothing, electronics, and food packaging. It has significantly impacted the environment and has led to plastic pollution. Primary plastics, such as bottle caps and cigarette butts, and secondary plastics, produced by degrading primary plastics, are classified based on size. Plastic's popularity stems from its ease of shape, affordability, and mechanical resistance. By 2030, the world is expected to produce 165 million tonnes of waste, requiring 66,000 hectares of land for landfills. Alternatives to plastic are debated, but it is clear that if nature or climate are disturbed, no one can save the planet. Strong regulations are needed to combat plastic pollution and greenhouse effects.

### INTRODUCTION

We are surrounded by plastic on a daily basis. Many of our furnishings, clothes, gadgets, and food packaging are made of it. Over the past few decades, plastic has mostly replaced natural production materials including paper, glass, and cotton. We are aware of the serious ecosystem damage caused by the widespread use of plastic. Plastic pollution is caused by an accumulation of plastic garbage in the environment. Primary plastics, such as bottle caps and cigarette butts, may be separated from secondary plastics, which are created as primary plastics deteriorate. It may also be divided into different sizes, ranging from macro-plastics to micro-plastics, which are microscopic plastic particles (less than 5 mm) dispersed throughout the environment. Since the 1950s, when it first became commercially viable, plastic has been a major success. Its output is quickly rising on a worldwide scale. Its success is due to its unique qualities, including simplicity in shaping, low cost, mechanical resistance, etc. Plastic is frequently utilised since it makes the greatest packing material.

### Causes

**Among the primary causes of plastics are:**

**Overusing single-use plastic products** - Plastics are a low-cost substance. The only reason why plastics are misused in daily life is because they are so expensive. The bulk of produced plastics are only utilised once before being discarded since fresh plastics are so readily available. As a result, many plastics are frequently disposed away alongside other trash. Take, for instance, plastic carry bags, single-use cups and utensils, packing materials, and a host of other items.

**Products and Toys Made of Plastic** - More people are choosing toys and things made of plastic. Once broken, these products or toys are thrown out with the trash, which adds to the expanding mountain of plastic waste.

**PET plastic bottles**- They are among the most prevalent kinds of pollution caused by plastic. Water, carbonated soft drinks, and packaged beverages are all distributed using PET plastic bottles. Once they have been used up, they are thrown out with the trash.

**Plastic Fishing Nets and Equipment** - Plastics of different grades are used to make commercial fishing nets. These are employed by several persons and enterprises. When plastic nets are immersed in ocean waters for a lengthy period of time, they start to leak toxins. In addition to the plastic waste poured into the oceans, broken or collapsed fishing nets are also filled with plastic waste.

**Improper Disposal of Plastics** - Plastics are resilient materials that are challenging to decompose, thus they cannot be disposed of properly. When they are abandoned or thrown away with other debris, they start to gather.

## Effects

Rapid economic growth has increased consumer demand for products that include single-use plastic items, such as straws and disposable cutlery. Approximately 14 million tonnes of plastic are used in India each year, but there is no systematic system in place to handle plastic waste, which leads to a lot of littering. Town streets are littered with used plastic objects that ultimately choke sewers, rivers, and seas and endanger animals. India has outlawed single-use plastic products such as straws, cutlery, earphones, packaging films, plastic sticks for balloons, confectionary and ice cream, and cigarette packs, according to a statement by Prime Minister Narendra Modi. Customers will be comforted by the fact that manufacturers and importers have been asked by the government to make plastic bags thicker in order to promote plastic reuse. Along with the food, beverage, and consumer products industries, plastic producers have expressed their opposition to the ban, saying that it did not give them enough time to prepare. Some experts claim that it might not be viable to implement the ban. The government has made the decision to erect control rooms in order to stop the illegitimate sale, distribution, and use of single-use plastic items.

## Cause of plastic ban on economic situation

The impact of a plastics ban on the economy has been debated extensively. Plastic must be banned immediately, but it is also important to take into account how this would impact the economies of each nation. The All India Plastic Manufacturers' Association (AIPMA) estimates that there are 30,000 units and rupees in the Indian plastics processing industry. 2.25 lakh crores in earnings each year. Additionally, the industry employs about 4 million people. The 30,000 units are made up 85% to 90% by small and medium-sized enterprises (SMEs). Trade would be significantly harmed by a prohibition. Any government measure that has the potential to cause industrial closures and job losses that might increase the unemployment rate during a recession should be carefully reviewed.

**Difficulty in Branding:** Building a powerful brand may be difficult. The fact that printing costs for plastic are substantially lower than those for paper or cloth bags is a significant issue that is sometimes disregarded.

**Pricing of the product:** Due to the fact that plastic bags are less expensive than paper bags, which may be purchased for 20–25 pence apiece, companies can save expenses and increase profit margins by purchasing plastic bags in bulk. Therefore, transitioning to non-plastic alternatives results in higher prices for producers, merchants, and customers. A rule banning the use of plastic increases the price of products and services, lowers manufacturer earnings, and weakens the local economy in the area where the policy is put into place. Plastic usage restrictions hurt sales and profits for businesses. It offers people who do business in areas where plastic is not banned an unfair advantage. By forgoing a costly item to carry their purchases, people usually try to save money. The price of plastic packaging, which is now included in the price of the primary product, will be reduced if plastic is outlawed, which might cut the cost of items and benefit consumers. It costs a lot of money to regularly clean sewers, landfills, and other structures. As a result, reducing or banning the use of plastic can result in huge financial savings that can be used to advance society. Industry analysts claim that a plastics ban would have a substantial impact on the GDPs of both the federal government and the states. This will also lead to an increase in bad bank debts from the plastics sector. The whole plastic industry was shocked to its very foundations by the Maharashtra government's 2018 ban on the use, sale, production, and storage of single-use plastic goods. The imposition of harsh fines was anticipated to have an impact on how well consumers were served. According to well-known economists, the "economies of plastics" need to be changed in order to create a plastic environment that is cost-effective after use. This objective may be attained by focusing on "recycling, reuse, and controlled biodegradation" of the plastic that consumers and businesses use.

## CONCLUSION

According to research, if current trends continue, the world's annual waste production would reach approximately 165 million tonnes by 2030, necessitating the usage of 66,000 hectares of land for landfills. Whether alternatives to plastic can genuinely be worse or better is a matter of debate. Numerous instances have shown that no one can preserve the world if nature or the climate are altered, whether spontaneously or as a result of human activity. Nations must establish strict rules in order to curb the rising plastic pollution and climate effect. It's not even too late, so it's better to act now than never.

**REFERENCES**

- Barnes, D.K.A.; Galgani, F.; Thompson, R.C.; Barlaz, M. Accumulation and fragmentation of plastic debris in global environments. *Philos. Trans. R. Soc. B Biol. Sci.* 2009, 364, 1985–1998.
- European Commission, Directorate-General for Environment. *Impact Assessment—Reducing Marine Litter: Action on Single Use Plastics and Fishing Gear*; DG ENV: Brussels, Belgium, 2018.
- European Parliamentary Research Service. *Towards a Circular Economy—Waste Management in the EU*; Scientific Foresight Unit: Brussels, Belgium, 2017; ISBN 978-92-846-1548-3
- Geyer, R.; Jambeck, J.R.; Law, K.L. Production, use, and fate of all plastics ever made. *Sci. Adv.* 2017, 3, e1700782, doi:10.1126/sciadv.1700782.
- Global Data Cotton Buds Market: Growth, Opportunities, Share and Competitive Analysis, 2018–2026; 2018. Available online: <https://www.prnewswire.com/news-releases/cotton-buds-world-industry-report-2018-2026-analysis-by-material-application-and-geography-300675866.html> on 3 July 2018
- Herberz T, Barlow C, Finkbeiner M 2020. Sustainability Assessment of a Single-Use Plastics Ban Sustainability, 12:3724
- Jambeck, J.R.; Geyer, R.; Wilcox, C.; Siegler, T.R.; Perryman, M.; Andrady, A.; Narayan, R.; Law, K.L. Plastic waste inputs from land into the ocean. *Science* 2015, 347, 768–771, doi:10.1126/science.1260352.
- Kershaw, P.; Katsuhiko, S.; Lee, S.; Samseth, J.; Woodring, D. Plastic debris in the ocean. In *UNEP Year Book*; United Nations Environment Programme: Nairobi, Kenya, 2011; pp. 20–33.
- Madaan J.2020,How does a Plastic Ban affect the Economy and Preserve the Environment. Retrieved from. <https://blog.ipleaders.in/plastic-ban-affect-economy-preserve-environment/>. On July 29
- Plastics Europe. *Plastics—The Facts 2018: An Analysis of European Plastics Production, Demand and Waste Data*; PlasticsEurope: Brussels, Belgium 2018.
- UN Environment Programme, 2021, Our Planet is Choking On Plastic. Retrieved from [https://www.unep.org/interactives/beat-plastic-pollution/?gclid=EAIaIQobChMIo4WEm-DS-gIV65VLBR0IyAUtEAAYAAAEgKsNvD\\_BwE](https://www.unep.org/interactives/beat-plastic-pollution/?gclid=EAIaIQobChMIo4WEm-DS-gIV65VLBR0IyAUtEAAYAAAEgKsNvD_BwE).
- UNEP. *Legal Limits on Single-Use Plastics and Microplastics: A Global Review of National Laws and Regulations*; UNEP: Nairobi, Kenya, 2018
- World Economic Forum, 2022, India Has Imposed a Ban on Single Use Plastic to Tackle Pollution. Retrieved from <https://www.weforum.org/agenda/2022/07/india-ban-policy-single-use-plastic-pollution>. On July 6 2022.