

## 1. Cities at crossroads: Single-use plastic only part of the Challenge

### Context:

- ▶▶ On October 2, the Prime Minister said that single use plastics will be phased out by 2022, and the officials indicated that states will play a major role in ensuring this happens.

### What are single Use Plastics?

- ▶▶ Single-use plastics are plastics which are used just once as in disposable packaging, and also in items such as plates, cutlery, straws, cups, etc.

### Single use plastics – only part of the story:

- ▶▶ A study by FICCI estimates that 43% of India's plastics are used in packaging and much of it is single-use. We are also experiencing completely unnecessary single-use plastic entering homes in the form of covers for invitation cards, magazines, bread wrappers, and advertisements.
- ▶▶ The growing volume, to a large extent, is because of rising e-commerce in India. People buy from companies like Amazon and Flipkart, that use single-use plastic (cling film, bubble wrap, etc.) for disposable packaging.
- ▶▶ Single-use plastic is only a part of what is truly a massive challenge, and that is the management of all kinds of plastic waste.

### Harmful effects of plastics:

- ▶▶ The problem is **that plastic does not decompose naturally** and sticks around in the environment for thousands of years. Safe disposal of plastic waste is, therefore, a huge challenge worldwide.
- ▶▶ Plastic carry bags pose a special problem. Although they are strong, lightweight and useful, and can be saved, cleaned and reused many times, this is mostly not done because they are available very cheap.
- ▶▶ Plastic is oil-derived material is not bio-degradable, careless disposal pollutes the environment in irredeemable ways. **Apart from the urban crisis of choked drains and garbage heaps, which can't be incinerated, we have several species at threat of polymer ingestion.**
- ▶▶ Marine life, in particular, has been suffering since much plastic waste ends up in the sea and in the bellies of aquatic creatures.
- ▶▶ **Micro-particles are increasingly being detected in fish**, which puts people at risk of contaminant-caused illnesses.

### Alternate ways to Minimize the Plastic Waste:

- ▶▶ **A compulsory charge by retail stores on carry-bags has proven most effective in reducing their use** sans a ban. In Ireland, a minor charge added to every bill saw a 95% reduction in demand for such carry-bags, as most shoppers began bringing in their own reusable grocery-bags.
- ▶▶ In India, the **Plastics Waste Management Rules 2016** included a clause in Rule 15 **calling for explicit pricing of carry bags**, which required vendors to register and pay an annual fee to the urban local bodies.
- ▶▶ We need to build awareness of the damage caused by single-use plastics and **develop consumer consciousness to minimise their use.**

For example, at airports, we could replace meters of cling-film, used to wrap luggage, with a pretty cloth bag temporarily sealed by machine stitching that can later find alternative uses.

- ▶▶ **Single-use plastic can potentially be converted by thermo-mechanical** recycling into plastic granules for blending into other plastic products, usually irrigation piping for agriculture. But collection of post-consumer waste and recycling poses a major challenge.
- ▶▶ The multi-layer flexible packaging which is used for Kurkure and other snack foods cannot be made into granules because it contains layers of plastic with different melting points.
- ▶▶ The Plastic Waste Management Rules of 2016 require creators of such packaging waste to take it back at their cost or pay cities for its management under **Extended Manufacturer Responsibility**. But there is little compliance.
- ▶▶ **Mandated by the National Highway Authority in November 2015** for up to 50 km around every city with population over 500,000 recycled plastic should be used in strengthening roads. To date over 14,000 km of so-called plastic roads have been built which are long-lasting and free of pot-holes.

### Conclusion:

- ▶▶ We need many more innovative ideas and a fundamental change in mindsets to minimise the use of single-use plastic. It is high time we also turn to the larger challenge of plastic waste management if we want to avail of the many advantages offered by plastics in our modern lifestyle.