SINGLE USE PLASTICS - GS III MAINS

Q. The persistence use of the Single Use Plastics (SUPs) poses harmful impacts on the Indian ecosystem. Do you think it's high time to ban the SUPs in India? Give your opinion (15 marks, 250 words)

News: *Ahead of U.N. meet, India chooses to 'regulate', not ban, single-use plastic*

What's in the news?

- Ahead of week-long negotiations involving 192 countries that are expected to begin in Toronto, Canada, next week on getting the globe to progress on eliminating plastic pollution, India is in favour of "regulating" and not outright eliminating single-use plastic, according to an analysis of various countries' public negotiating positions by the Centre for Science and Environment (CSE), a not-for-profit based in New Delhi.

Key takeaways:

- In 2022, India brought into effect the Plastic Waste Management Amendment Rules (2021) that banned 19 categories of 'single-use plastics'.
- These are defined as disposable goods that are made with plastic but are generally use-and-throw after a single use.

Single-use Plastics:

- It is referred to as disposable plastics, are commonly used for plastic packaging and include items intended to be used only once before they are thrown away or recycled.
- It has the highest share of plastic manufactured and used, accounting for a third of all plastic produced globally.
- 98% of single-use plastics (SUP) are manufactured from fossil fuels.

Application:

- These include, among other items, grocery bags, food packaging, bottles, straws, containers, cups and cutlery

Benefits:

- Single-use plastic bags are widely used because they are strong, cheap and hygienic ways to transport goods.

Concerns with SUPs:

1. Health Risks:

- Some single-use plastics contain harmful chemicals like BPA and phthalates, which can leach into food and beverages, potentially causing health issues, especially when plastics are used for heating or storing food.

2. Climate Change:

- The production and disposal of SUPs contribute to greenhouse gas emissions, adding to the problem of climate change.

3. Microplastics in Food:

- Microplastics that contaminate water sources and marine life can eventually enter the human food chain, raising concerns about potential health risks.

4. Impact on Tourism:

- Pollution from SUPs can damage tourist destinations and reduce tourism revenue, affecting local economies.

5. Waste Management Challenges:

- The sheer volume of single-use plastic waste overwhelms waste management systems, leading to inadequate disposal and recycling, and ultimately contributing to pollution.

6. Environmental Degradation:

- Single-use plastics, such as bags and bottles, take hundreds of years to decompose.
- They accumulate in landfills, water bodies, and natural environments, contributing to pollution and degrading the ecosystem.

7. Harm to Marine Life:

- Many marine animals mistake plastic for food and ingest it, leading to choking, digestive issues, and starvation.
- Plastic debris also entangles marine species like turtles, seabirds, and marine mammals, causing injuries or even death.

8. Water Pollution:

- Single-use plastics can break down into microplastics, which are tiny particles that contaminate water sources.
- These microplastics can enter the food chain and eventually harm human health.

9. Land Pollution:

- Improper disposal of SUPs results in the littering of public spaces and landscapes, creating an unsightly and hazardous environment for both humans and animals.

10. Economic Impact:

- Cleaning up single-use plastic pollution and dealing with its consequences pose significant costs to local communities, municipalities, and governments.

Government Measures and Ban on Single-Use Plastics in India:

The Plastic Waste Management Rules, 2016, with amendments, set guidelines for enforcing rules, including banning certain SUPs. Starting from July 1, 2022, the following items have been prohibited due to their low utility and high littering potential such as

- Plastic earbuds with sticks
- Plastic sticks for balloons
- Plastic flags
- Candy sticks
- Ice-cream sticks
- Polystyrene (Thermocol) for decoration
- Plates, cups, glasses, cutlery (forks, spoons, knives, straws, trays)
- Plastic films around sweet boxes, invitation cards, and cigarette packets
- Plastic or PVC banners less than 100 microns
- Stirrers
- Additionally, there are restrictions on the thickness of plastic carry bags.

Challenges in Banning SUPs:

1. Lack of Cheap Alternatives:

- The availability of cheap alternatives to cater to the demand for SUPs' banned products is a critical challenge as India generates 26000 tons of plastic waste every day, and it would be difficult to replace it.

2. Lack of Specific Advisory:

- India has not yet issued any advisory to stop the use of Single plastics (SUPs), and no penalties have been imposed following the ban.

3. Lack of Ability:

- The ban on SUPs impacts the most vulnerable segments, especially the small and medium enterprises (SMEs) of the plastic industry.

India and SUP:

- **Major Generator:** India ranks among the world's largest SUP waste contributors.
- **Mismanagement:** A high percentage of India's plastic waste is mismanaged, polluting the environment.
- **Limited Impact:** The current ban targets only a small portion of overall SUP waste.

Way Forward:

1. Promote Recycling and the Circular Economy:

- Implement and strengthen recycling programs, ensuring efficient collection, segregation, and recycling of plastic waste.

- For example, the city of Pune, Maharashtra, has implemented a successful door-to-door plastic waste collection system.

2. Eco-Friendly Packaging:

- Encourage industries to adopt sustainable packaging practices, such as using minimal packaging, reusable containers, and biodegradable materials.
- For example, the brand "Paper Boat" in India packages its beverages in Tetra Paks, which are made from renewable materials and are recyclable.

3. Innovative Solutions:

- Invest in research and development of innovative technologies and materials that can replace plastics or make them more biodegradable.
- For example, the Indian Institute of Technology (IIT) Madras has developed edible cutlery made from millets and rice, providing an innovative and eco-friendly alternative to single- use plastic cutlery.

4. Waste Management Infrastructure:

- Invest in efficient waste management systems, including proper collection, segregation, and recycling facilities.
- For example, the "Clean Kerala Company" in Kerala has implemented a decentralized waste management system, including organic waste composting units and plastic shredding machines.

The ban on single-use plastic is just a small step towards attainment of sustainable development. The current scenario warrants that all the countries develop a higher degree of environmental consciousness and realisation.