



## India's Battle Against Single-Use Plastics

**For Prelims:** India's Battle Against Single-Use Plastics, [United Nations Environmental Assembly](#), [Extended Producer Responsibility \(EPR\)](#)

**For Mains:** India's Battle Against Single-Use Plastics, Environmental Pollution and Degradation, Conservation.

[Source: DTE](#)

### Why in News?

India had committed to phase out Single-Use Plastics (SUP) by 2022, three years later, while some progress has been made with the ban on selected SUP items, challenges persist.

- According to a report launched during the 6<sup>th</sup> [United Nations Environmental Assembly \(UNEA-6\)](#), the thriving street food sector across India depends heavily on single-use plastics.

### What are the Key Highlights of the Report Released at UNEA-6 Regarding SUP?

- **Street Food Sector's Reliance on SUP:**
  - Single-use plastics such as plates, bowls, cups, and containers are extensively **used in India's street food sector**. Despite their affordability, these items contribute significantly to the country's waste management challenge.
- **Benefits of Reuse System:** The findings reveal the reuse system offers a compelling business case with various benefits:
  - **Reduced costs:** Both vendors and customers experience cost savings.
  - **Waste reduction:** The system significantly reduces the amount of packaging material needed.
  - **Financial viability:** The report highlights a potential 21% return on investment with a payback period of 2-3 years.
  - **Additional considerations:** Material choice, retention time, return rate, deposit amounts, and government incentives are crucial factors for optimizing the system's effectiveness.
- **Recommendation:**
  - Adopting a reusable packaging system in India's street food sector presents a win-win solution.
  - It is both economically viable and environmentally sustainable, benefiting all stakeholders and paving the way for a more resilient and sustainable future for Indian cities.

### What is Single-Use plastic?

- It refers to a **“plastic item intended to be used once for the same purpose before being disposed of or recycled.”**
  - Single-use plastic has among the highest shares of plastic manufactured and used — from packaging of items to bottles (shampoo, detergents, cosmetics), polythene bags, face

masks, coffee cups, cling film, trash bags, food packaging etc.

- On the current trajectory of production, it has been projected that **single-use plastic could account for 5-10% of greenhouse gas emissions by 2050.**

## What is the Current Landscape of Single-Use Plastics?

### ▪ Share of Banned Single-Use Plastic Items:

- India banned **19 identified single-use plastic items in 2021**, but it fell short of addressing the broader spectrum of single-use plastics still in circulation.
- The annual share of banned single-use plastic items is roughly 0.6 million tonnes per year.
- The remaining single-use plastic items, comprising mostly packaging products, are covered under the **Extended Producer Responsibility (EPR)** policy introduced by the Ministry of Environment, Forest and Climate Change (MOEFCC) in 2022.
  - The **EPR policy specifies target collection and recycling**, ignoring the fact that some single-use plastics that are not banned (such as multilayered packaging) are non-recyclable.

## // PARAMETERS FOR THE BAN ON SINGLE-USE PLASTIC IN INDIA

Utility Index—parameters (100)	Environmental Impact—parameters (100)
Hygiene (20)	Collectability (20)
Product safety (20)	Recyclability (20)
Essentiality (20)	Possibility of end-of-life solutions (20)
Social Impact (20)	Environmental Impact of alternative products (20)
Economic Impact (20)	Littering propensity (20)

### ▪ India's share in Plastic Production:

- According to the report **Plastic Waste Makers Index 2019**, India was the 13th largest investor in **single-use plastic polymer production** globally.
- India ranked 3rd globally, contributing 5.5 million tonnes of single-use plastic (SUP) waste, and ranked 94<sup>th</sup> with **per capita single-use plastic waste of 4 kg per year**, indicating that the SUP ban in India addresses roughly 11% of the entire gamut of single-use plastic waste.

### ▪ India's Mismanagement in Plastic Waste:

- The UNEP's country-wise plastic data revealed that **India mismanages 85% of its plastic waste.**
- This waste, **predominantly single-use in nature**, is dumped or even burnt at roadsides, choking drains and flowing into the rivers from where it disperses into the ocean, **harming marine life directly or indirectly as it degrades into micro- and nano-sized particles** over months, years and decades.

## What are the Challenges in Tackling Single-Use Plastic?

### ▪ Lack of Alternatives:

- One of the major hurdles in phasing out single-use plastics is the **limited availability of viable alternatives.**
- While there are some alternatives available, they may not be **cost-effective, convenient, or widely accessible**, making it difficult for consumers and businesses to transition away from single-use plastics.

### ▪ Economic Considerations:

- Single-use plastics are often **preferred for their affordability and convenience.** Transitioning to alternatives may require investments in research, development, and infrastructure, which **can be costly for both businesses and governments.**

- Additionally, **consumers may be unwilling to pay higher prices** for alternative products.
- **Infrastructure:**
  - Adequate waste **management infrastructure is essential for managing the disposal** and recycling of plastics. However, many regions, particularly in developing countries, lack the **necessary infrastructure for proper waste management**, leading to plastic pollution and environmental degradation.
- **Policy and Regulation:**
  - While some governments have implemented regulations to restrict the use of single-use plastics, enforcement and compliance can be challenging.
  - There may also be resistance from industries that rely on single-use plastics, as well as from consumers who are accustomed to their convenience.
- **Consumer Behavior:**
  - Changing consumer behavior and attitudes towards single-use plastics is crucial for reducing their use.
  - However, this can be difficult to achieve, as habits are deeply ingrained, and there may be a lack of awareness about the environmental impacts of single-use plastics.
- **Impact on Livelihoods:**
  - In some cases, bans or restrictions on single-use plastics may have unintended consequences for livelihoods, particularly for those employed in industries that rely on the production or sale of single-use plastics.
  - Efforts to phase out single-use plastics must consider the socio-economic implications and provide support for affected individuals and communities.

## What Measure can be Taken to Deal With the Issue of Single-Use Plastic?

- **Enforce Laws:**
  - **Upgrade the capacity of officials**, especially those issuing challans, on what to look for during inspections. **Equip inspection teams with instruments** like gauge meters. Ensure reporting on inspection scale in various facilities.
- **Mandate Public Disclosure of Environmental Compliance:**
  - The **CPCB (Central Pollution Control Board)** and **MOEFCC** should mandate local governments and states to provide quarterly updates on their websites, including **information on environmental compensation**, units shut, and fines imposed.
  - States should also submit enforcement reports to the CPCB fortnightly. The CPCB should ensure **this information is included in its Annual Report as per the Plastic Waste Management Rules, 2016**, and share data collected from private players and state authorities.
- **Stop the Micron Business:**
  - Carry bags irrespective of thickness should be banned. This has been done successfully in countries that are weaker economies than India such as various East African countries, for example, **Tanzania and Rwanda**.
  - The Indian state of Himachal Pradesh through its **Non-biodegradable Garbage Control Act of 1998** has completely **banned** the production, distribution, storage and **use of carry bags**.
    - This is not just a policy on paper but has been implemented at scale in the entire state of Himachal Pradesh.
- **Invest in the SUP Alternative Market:**
  - The **scarcity of alternatives is a major obstacle to moving away from SUP**. The market will transition when cost-effective and convenient options become widely available.
  - However, **substitutes are currently not abundant**. This scarcity is largely due to the government's past neglect in promoting the alternative industry, while also attempting bans at the national and state levels.

## How are other Countries Dealing with SUP?

- **Sign Resolution:**
  - In 2022, 124 countries, parties to the **United Nations Environment Assembly**, **including India**, signed a resolution to draw up an agreement which will in the future

make it **legally binding for the signatories** to address the full life of plastics from production to disposal, to end plastic pollution.

- As of July 2019, **68 countries have plastic bag bans** with varying degrees of enforcement.

▪ **Countries which Ban Plastic:**

- **Bangladesh:**
  - Bangladesh became the **first country to ban thin plastic bags in 2002.**
- **New Zealand:**
  - New Zealand became the latest country to **ban plastic bags in July 2019.**
- **China:**
  - China issued a ban on plastic bags in 2020 with phased implementation.
- **US:**
  - **Eight states in the US have banned single-use plastic bags**, beginning with California in 2014. Seattle became the first major US city to ban plastic straws in 2018.
- **European Union:**
  - In July, 2021, the Directive on Single-Use Plastics took effect in the European Union (EU).
  - The directive **bans certain single-use plastics** for which alternatives are available, single-use plastic plates, cutlery, straws, balloon sticks and cotton buds cannot be placed on the markets of the EU member states.
  - The same measure applies to cups, food and beverage containers made of expanded polystyrene, and all products made of oxo-degradable plastic.

## Conclusion

- India's battle against single-use plastics demands a concerted effort from policymakers, industry stakeholders, and citizens alike. While strides have been made, gaps in enforcement, awareness, and infrastructure persist. By embracing sustainable solutions and prioritizing proactive measures, India can mitigate the adverse impacts of single-use plastics and pave the way for a cleaner, greener future.

## UPSC Civil Services Examination, Previous Year Question (PYQ)

**Q. Why is there a great concern about the 'microbeads' that are released into environment? (2019)**

- (a) They are considered harmful to marine ecosystems.
- (b) They are considered to cause skin cancer in children.
- (c) They are small enough to be absorbed by crop plants in irrigated fields.
- (d) They are often found to be used as food adulterants.

**Ans: (a)**

- Microbeads are small, solid, manufactured plastic particles that are less than 5mm and do not degrade or dissolve in water.
- Mainly made of polyethylene, microbeads can also be prepared from petrochemical plastics such as polystyrene and polypropylene. They may be added to a range of products, including rinse-off cosmetics, personal care and cleaning products.
- Because of their small size, microbeads pass unfiltered through the sewage treatment system and reach the water bodies. The untreated microbeads in the waterbodies are taken up by the marine animals, thus producing toxicity and causing harm to the marine ecosystem.
- In 2014, Netherland became the first country to ban cosmetics microbeads.
- **Therefore, option (a) is the correct answer.**

