

## General Studies-3; Topic: Environmental pollution and degradation

### Regulation of Single-Use Plastic

#### 1) Introduction

- Single-use plastics (SUPs), or disposable plastics, are products that are used only once before they are thrown away'.
- A FICCI study estimates that 43 per cent of India's plastics are used in packaging and much of it is single-use plastic.
- Close to 20 states in India have imposed a partial or total ban on single-use plastics at one time or another.

#### 2) Present Status in India

- Unnecessary single-use plastic entering our homes in the form of covers for invitation cards, magazines, bread wrappers and advertisements.
- Rising e-commerce in India with people buying from companies like Amazon and Flipkart that use single-use plastic for disposable packaging.
- India is enriching other countries by buying their crude oil and ruining its own environment by converting it into plastic waste.
- India has put off the ban on single-use plastic items.
- This is unfortunate, as it would have put India at the forefront of regulations to solve plastic pollution, well ahead of even the EU.
- Industry lobbies against plastic ban and pointing out that plastic ban would 'harm the economy'.
- Alternatives to single-use plastics are not immediately available.
- India, which uses about 14 million tonnes of plastic annually, lacks an organised system for management of plastic waste, leading to widespread littering.
- A study by FICCI points out that fast-growing consumption has brought us to a point where consumption has clearly outstripped India's current capacity to recycle plastics.

#### 3) Plastic Pollution

- Plastic waste is at epidemic proportions in the world's oceans with an estimated 100 million tonnes dumped there, according to the United Nations.
- Scientists have found large amounts of micro plastic in the intestines of deep-dwelling ocean mammals like whales.
- The toxins, poisons and persistent pollutants present in plastic products leach and enter human bodies where they cause several diseases, including cancer.

#### 4) Positive Developments

- There are hundreds of solutions and alternatives to single-use plastics.
- Many have been developed by startups led by environmentally focused entrepreneurs — ecopreneurs.
- For scaling up, this requires visionary leadership in corporations, capital from investors, and collaborative efforts between competitors within industries.
- Some examples of upstream innovations are bioplastics made from algae.
- Some bioplastics like PHAs (polyhydroxyalkanoates) are soil- and marine-safe — that is, they safely degrade in the environment.

- Indian entrepreneurs have created solutions that can replace packaged plastic bottled water in most locations.
- To date, over 14,000 km of so-called plastic roads have been built which are long-lasting and free of pot-holes.

## 5) Banning Single Use Plastic (SUP)

- **Baseline and inventory**
  - a. There is a need for a thorough analysis of environmental, social and economic impacts of SUPs.
  - b. Inventorisation studies in order to estimate how much fraction of single use plastics is there in our plastic waste.
  - c. These numbers shall help assess the scale of such waste and look for a clear alternative.
- **Clear definition of SUPs**
  - a. For SUP ban to be successful, we need a clear definition of SUPs.
  - b. In India, we do not have a national categorisation of SUPs. States are defining SUPs on their own
  - c. Such differences are creating market distortions as well as hampering the enforcement of regulations.
  - d. To identify the most problematic SUPs, we need to define and categorise them for regulatory purposes.
- **National Action Plan for phasing out SUPs**
  - a. There is a need for a National Action Plan or guidelines that should focus to implement plastic ban in a phase-wise manner.
  - b. The phase-wise banning should be developed based on materials, recyclability, availability of alternatives and livelihood security to the informal sector.
- **Strengthening waste management systems**
  - a. Better waste management systems with focus on segregation incentive models can help achieve long-term impacts.
  - b. This has value and a market and will not end up as litter. We need to source segregate.
- **Informal is critical**
  - a. A bigger debate over the SUP ban issue is on the fact that more than a million workers will lose jobs.
  - b. There needs to be a clear roadmap on how these workers will be transitioned to any other industry.
- **Alternatives to single-use plastics**
  - a. Devising feasible alternatives for single-use plastic items and targeting consumers and retailers for better marketing is needed.
  - b. Options of giving enough time of transition to industry along with tax rebates for alternative industry need to be explored.
- **Social engineering**
  - a. Presently, consumer awareness about negative impacts of littering single-use plastics is still limited.
  - b. This further needs to be strengthened through communication, strategic planning and consumer awareness campaigns.
  - c. This will not only improve eco-consciousness among citizens but will also empower and encourage widespread actions.

## 6) Way Forward

- India Inc must embrace solutions rather than lobbying against regulations.

- It can create a golden opportunity for India to lead the world in innovations to solve plastic pollution.
- Where plastic cannot be eliminated, the next best option is reusability, like replacing plastic bottles with glass bottles.
- Where single-use plastic cannot be avoided, a plethora of technologies can help recover and sort the waste.
- Examples are smart bins, sorting machines, reverse vending machines and smart packaging technologies that make it easier to separate different materials.
- Once sorted, there are many options to recover value from waste plastics.
- We need 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 continue to avail of the advantages offered by plastics in our modern lifestyle.