WAR ON PLASTIC

Prelims: Environment- Pollution & Waste Management

Mains: GS-III- Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.

Context: Prime Minister Narendra Modi in his Mann Ki Baat urged the people to observe the 150th birth anniversary of Mahatma Gandhi this year as a day to make India plastic free and urged municipalities, NGOs and the corporate sector to come up with ways for safe disposal of accumulated plastic waste before Deepavali.

Need to Define Single Use Plastic:

- Single Use Plastics (SUPs) is often misunderstood to be polythene carry bags, but it is not the case.
- The **United Nations** classifies single-use plastics as products that are commonly used for plastic packaging and include items intended to be used only once before they are thrown away or recycled.
- These includes grocery bags, food packaging products, bottles, straws, containers, cups and cutlery.
- **Government's take**
  - A committee was formulated by the Union Ministry of Chemicals and Fertilizers **to define SUPs and prepare a roadmap for its elimination.** However, in the four committee meetings that have been held this year, nothing concrete has come out.

Study on Plastic Data Is Also Needed:

- Approximately 70 per cent of plastic packaging products are converted into plastic waste in a short span, according to the last estimate done by Central Pollution Control Board (CPCB) in 2015.
- Almost 66 per cent of plastic waste, comprising polybags, multilayer pouches used for packing food items, etc. (belonging to high-performance poly ethylene/ low-density polyethylene or polypropylene materials), was sourced mainly from households and residential localities, it showed.

- The composition of our waste has changed drastically in the last decade adding more plastics to the waste that we generate.
- This needs a re-assessment. To understand the challenge and work on processing methods, robust inventorisation studies needs to be done in cities.

Is Banning Plastic A Solution?

- Though the idea of restricting the inflow by imposing a ban sounds good, the question on the economics, availability and applicability of alternatives remains unanswered.
- Plastic ban can be effective if users simply switch to alternatives such as paper, cloth or jute bags.
- About 47 per cent of the plastic waste generated globally, came from multi-layered packaging waste. Nearly half came from Asia, according to the UN.
- **Multi-layered packaging cannot be exempted from ban since it doesn't have a readily available alternative.**
- Therefore, there is an imminent need for a rethink on the alternate options which are cheap, durable and easily available.
- The industry needs to be pushed for R&D on packaging design and use of alternatives in a phased manner.
- For this, concrete timelines should be fixed giving industry enough time for transition. Certain eco-friendly materials could also be exempted from taxes to encourage usage of alternatives.
- The capacity of the local governments to impose a ban remains a challenge. How green are our recycling technologies is another question unanswered and needs to be looked into far deeply than we did before.
- **Recycling:**
  - Globally, only nine per cent of the plastic is getting recycled, about 12 per cent incinerated and 79 per cent ends up in landfills, according to UNEP 2018 report.
  - In India, however, **about 60 per cent of plastics gets recycled** as per estimates but most of it is downcycled, which means polyethylene terephthalate (PET) is not recycled to PET but to a low-value product.
- **Issue in Recycling:**
  - In the current paradigm, recycling alone will not work. Yes, recycling, repair and refurbishing — all three have their place as the building blocks of a circular economy. However, the dependence on a silver bullet system that takes your waste and turns it into something valuable is far from reality.

- ❖ We need to work on making recycling greener by including the vast informal sector. Also, sustainable technological interventions need to be mapped, authorised and promoted.

Issue with Multi-layered Plastic (MLP):

- Multilayered plastic (MLP) waste is difficult to collect or treat.
- There are no proven industry solutions for tackling MLP.
- The government too does not have a clue how to deal with these packets which are indestructible and add to garbage dumps.

What Can Be Done for Multilayered plastic (MLP)?

- The only way is to recover aluminium and convert the plastic into a chemical or fuel via a process called pyrolysis.
- Collecting MLP too is tedious.
- In the US, Recycling Partnership, a consortium of companies and state governments, has put special bins for recyclable plastics, which includes MLP. Enval, a spin-off from the Department of Engineering, Cambridge University, provides the infrastructure for pyrolysis to recover 100 per cent aluminum.
- Plastic components are converted to fuel, which is used to power the process.
- In India, MK Aromatics Ltd, a Bengaluru-based company, converts MLP into sulphur-free polymer oil. The impurities during the processing are collected as coke from which aluminium is extracted. MK Aromatics also treats the industrial MLP waste of Hindustan Unilever Ltd (HUL) and the oil manufactured is bought back by HUL.

What Government Should Do?

- The Centre and state governments need to focus on effective implementation of **extended producer responsibility**, which includes a mixture of tools like deposit refund scheme, advanced recycling fee to collect back the plastic waste induced into the market.
- All this with targeted campaigns and social engineering tools can make people aware of the concerns and alternatives to plastics.

Way Forward:

- While there exists no single solution to the palpable problem of plastics, a clear definition, data on generation and solutions with long sightedness backed by technical feasibility and scientific reasoning, rather than short-term wrapping is what the need of the hour is.
- In the end, the burden of change comes down to us — to you and me to say no unless something is reusable — to reject the system that has been pushed upon us by refusing disposables and demanding better products and services.

Features of Plastic Waste Management Rules:

- Companies that use plastic in their processes — packaging and production — have a responsibility to ensure that any resulting plastic waste is safely disposed of.
- **Extended Producers Responsibility (EPR)**
  - EPR is a practice and policy approach in which producers are made responsible for collecting and processing their manufactured products upon end of their lifetime. Responsibility may be fiscal, physical or a combination of both.
  - Companies have to specify collection targets as well as a time line for this process within a year of the rules coming into effect.
- The Rules also mandate the responsibilities of local bodies, gram panchayats, waste generators and retailers to manage such waste.