Eliminating Single Use Plastics

What is the issue?

- Prime Minister Modi made announcements on August 15 and October 2 2019 that India would eliminate single-use plastics (SUPs) by 2022.
- In this context, here is a look at the usage scenario and alternatives for Single Use Plastics (SUPs).

What are SUPs?

- SUPs refer to plastics that are used just once, as in disposable packaging and in items such as plates, cutlery, straws etc.
- Nearly 43% of India's plastics are used in packaging and much of it is single-use plastic.
- There are also completely unnecessary single-use plastic entering homes in the form of covers for invitation cards, magazines, wrappers and advertisements.
- Single-use plastic is only part of the massive challenge with management of all kinds of plastic waste.
- But it is good to begin with SUPs because its large and growing volume adds enormously to the total plastic waste.

How have SUPs use and ban been?

- Ever since plastic was invented by John W Hyatt in 1869, it has been an integral part of people's lives.
- It contributed much to the convenience of modern living because of the flexibility, durability and lightness of the material.
- India recycles much more than the industrialised countries through an informal network of waste collectors and segregators.
- However, the fast-growing consumption has clearly outstripped India's current capacity to recycle plastics.
- Despite the reuse potential of plastics, it is often not done so because they are available very cheap and are, therefore, not valued.
- The growing volume is, to a great extent, because of rising e-commerce in India, which largely use single-use plastic for disposable packaging.
- The companies have made commitments to phase out their use of SUPs, but this is unlikely to happen anytime soon.

- Close to 20 states in India have imposed a partial or total ban on SUPs at one time or another.
- Maharashtra, TN, Telangana and HP opted for complete bans, while others including MP, Bihar and Odisha have tried partial bans.
- But the bans have, by and large, not been successful because of poor state capacity to enforce.

- Moreover, in India, plastic producers have been advocating thicker and thicker micron sizes for carry-bags.
- Also, when there is a ban on carry-bags, it leads to the use of non-woven polypropylene (PP) bags.
- These bags feel like cloth and are now even being printed to look like cloth.
- But these are more dangerous for the environment as their fine fibres rub off and enter global waters as micro-plastics.

What are the threats?

- Plastic does not decompose naturally and sticks around in the environment for thousands of years.
- Discarded plastic bags create the greatest problems in waste management.
- Blown by wind into drains, they cause flooding of urban areas.
- Used as waste-bin liners to dispose of daily food scraps, they find their way into the stomachs of roaming livestock.
- Animals ingest them to get the food inside, which ultimately causes their death.
- All plastic waste is eventually carried by rain, streams and rivers into the oceans.
- A Texas-sized great garbage patch of floating plastics swirling in the Pacific first attracted attention in the 1960s.
- A similar or even greater quantity of sunken plastic, especially discarded fishing gear, called ghost nets, blankets the ocean floors.
- Both floating and sunken plastics kill riverine and marine life.

What are the possible measures, alternatives and challenges therein?

- **Compulsory charge** by retail stores on carry-bags has proven most effective in reducing their use without a ban.
- In Ireland, a minor charge added to every bill saw a 95% reduction in demand for such carry-bags.
- In India, the Plastics Waste Management Rules 2016 included a clause in Rule 15 which called for explicit pricing of carry-bags.
- This required vendors to register and pay an annual fee to the urban local bodies.

- But lobbying by the producers of plastics ensured that this clause was removed by an amendment in 2018.
- **Alternatives**, for plastic materials, that are environmentally harmless should be promoted.
- E.g. cloth bag to wrap luggage at airports, paper plates, bamboo straws, butter-paper as bread wrappers, tear-proof paper for magazines, invitations and advertising
- **Plastic granules** - SUPs can potentially be converted by thermo-mechanical recycling into plastic granules.
- These can be used for blending into other plastic products, usually irrigation piping for agriculture.
- Collection of post-consumer waste and recycling poses a major challenge especially when packaging comprises layers of different types of polymer.
- The multi-layer flexible packaging, which is used for chips and other snacks, cannot be made into granules.
- This is 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.
- Otherwise, they should pay cities for its management under Extended Manufacturer Responsibility.
- But there is little compliance on this.
- There is a need to build awareness of the damage caused by SUPs and develop consumer consciousness to minimise their use.
- **Roads** - Recycled plastic can be used to strengthen roads.
- Use of plastics more than doubles or triples road life.
- This has been approved by the Indian Road Congress and mandated by the National Highway Authority in November 2015.
- It is allowed for up to 50 km around every city with a population of over 5,00,000.
- To date, over 14,000 km of so-called plastic roads have been built which are long-lasting and free of pot-holes.
- But corruption in road contracts restricts the wider use of this as longer-lasting roads means fewer contracts for building and rebuilding poor quality roads.
- **Biodegradable pith** - Thermocol could be replaced with totally biodegradable pith from the shola/sola plant (Aeschynomene aspera), a wild marsh-land reed.
- This was used in huge quantities till the 1950s for making sola-topees or pith helmets for colonials and their armies.
- It is still used in weddings and Puja decorations.
- Steady commercial use of this could be promoted to be a source for rural

income generation.

What should be done?

- There is a need for many more innovative ideas and a fundamental change in mindsets to minimise the use of single-use plastics.
- It is high time the country also turn to the larger challenge of plastic waste management.
- This is essential to continue to effectively avail of the many advantages offered by plastics in modern lifestyle.

Source: The Indian Express

