

General Studies-3; Topic: Environmental pollution

Plastic Pollution

1) Introduction

- The theme for the World Environment Day 2018 - "Beat Plastic Pollution".
- The theme invites everyone to make changes in their everyday lives to reduce the burden of plastic pollution on our natural places, our wildlife - and their own health.
- The ubiquitous nature of plastic means it is one of the most used materials in the world.

2) Plastic Pollution / Threat

- Plastics are notorious in terms of pollution and are known for being difficult to recycle.
- The discarded plastic continues to exist in landfills and oceans, slowly leaching into the eco system or ending up in the stomachs of marine and other animals.
- It has adversely affected our marine environment, water systems, biodiversity, economies and human health.
- Environmental degradation hurts the poor and vulnerable the most.
- Most plastics are actually downcycled which means recycled plastics are not at par with virgin plastic and are instead transformed to a much lower quality.
- According to a report, by 2050 oceans are expected to contain more plastics than fish (by weight), and the entire plastics industry will consume 20% of total oil production, and 15% of the annual carbon budget.
- There were reports of nano-plastic particles present in water bottles posing serious threats to consumer health.
- Once in the environment, it enters our food chain where, microplastic particles are turning up in our stomachs, blood and lungs.
- A large number of city drains are clogged by plastic bags which are leading to water logging and urban floods as seen in recent times.
- In developing economies like India, a rise in the middle class population has meant a higher level of consumption — and plastic waste generation.

3) Present Status

- Over-reliant on single-use or disposable plastic - with severe environmental consequences.
- About 25,000 tonnes of plastic waste is generated every year in India, of which only 60 per cent is recycled.
- There is a huge issue of waste management in India.
- Delhi tops the chart of plastic waste followed by Chennai, Mumbai, Bengaluru and Hyderabad.
- Indian waste management Industry has a potential of \$15 billion with promising growth prospects.

4) International Examples

- The European Union proposed ban on single-use plastics while urging the collection of most plastic drinks bottles by 2025.
- Kenya has banned throwaway plastic bags, and the result is that its national parks are even more attractive and city drains are less blocked, helping reduce flooding.
- Rwanda has done it too, making Kigali one of the world's cleanest cities.

- U.S., Canada and the Netherlands have regulations to stop the use of microbeads in personal-care products.
- In Germany, consumers get a small refund when returning a plastic bottle. More than 98% of plastic bottles are returned.

5) Concerns / Challenges

- The recycling efforts are failing to keep pace with production.
- Current standard water treatment systems do not filter out all of the microplastics.
- It is creating an environmental crisis comparable to climate change.
- Cattle and other animals unknowingly consume some of this plastic material which is not digested, end up with painful death. This will have an impact for the farmers and on the Indian economy.
- Pollutants also upset primary food production in waterbodies by preventing the entry of sunlight into water.
- Plastic pollution in beaches also impact tourism.
- The ban on plastic carry bags below 40 microns in many states has not yielded the desired results.

6) Way Forward

- Citizens must act as both responsible consumers and informed citizens; demanding sustainable products and embracing sensible consumption habits into their own lives.
- Beating plastic pollution will require reducing single-use plastic products which require a change in behaviour.
- Effective enforcement of existing rules and regulations governing plastics.
- 'Zero-effect, zero-defect' khadi product is a major agent in humanity's fight against plastic.
- For more than 60 years, khadi has been linked with India's fight for freedom and today it has emerged as one of the most eco-friendly products.
- We can provide the best Indian practices to the world and can bring best practices from the world to India.
- More emphasis on circular economy so that we can reduce waste, drive greater resource productivity and help reduce the environmental impacts of our production and consumption.
- Raising awareness for "a cleaner and greener environment that can lead us to sustainable development".
- Producers can clearly label products and inform consumers how the waste should be disposed of.
- Market interventions such as pricing of plastic bags have proved to be effective in some countries, encouraging shoppers to carry their own bags.
- Investment in research and development for developing alternatives to plastics, and innovations in re-use and recycling are essential.
- We must ensure that material prosperity does not compromise our environment.
- UN and the governments must consider bringing conventions for beating plastic pollution at the global level like Montreal protocol for CFC.

7) Conclusion

- It is our responsibility to ensure that our future generations live in a clean and green planet, in harmony with nature.
- With the United States working on its way to quit the Paris Climate Agreement, it's the right time for India to lead the world in the war against climate change and pollution.