



Green Initiatives for Effective Plastic Waste Management

For Prelims: Prakriti, National Dashboard on Elimination of Single Use Plastic, Extended Producer Responsibility Portal, Graphene, Plastic Waste and Related Initiatives.

For Mains: Conservation, Environmental Pollution & Degradation, Government Policies & Interventions, Plastic Waste and Related Initiatives.

Why in News?

Recently, the Union Minister of Environment, Forest & Climate Change (MoEFCC) launched the Awareness Mascot '**Prakriti**' & **Green Initiatives for Effective [Plastic Waste Management](#)**.

- The mascot will **spread greater awareness among masses** about small changes that can be sustainably adopted in our lifestyle for a better environment.
- Earlier in February, the Ministry of Environment, Forest, and Climate Change announced the **[Plastic Waste Management \(Amendment\) Rules, 2022](#)**.

What are the Green Initiatives Launched?

- **National Dashboard on Elimination of [Single Use Plastic \(SUP\)](#) and Plastic Waste Management** by MoEFCC to bring all stakeholders including Central Ministries/ Departments, State/UT Governments at one place and track the progress made for elimination of SUP and effective management of plastic waste.
- **[Extended Producer Responsibility \(EPR\) Portal](#)** by **[Central Pollution Control Board {CPCB}](#)** for Plastic Packaging, improving accountability, traceability, transparency and facilitating ease of reporting compliance to EPR Obligations by Producers, Importers and Brand-owners
- **Mobile App** for Single Use Plastics Grievance Redressal by CPCB to empower citizens to check sale/usage/manufacturing of SUP in their area and tackle the plastic menace.
- **Monitoring module for Single Use Plastics (SUPs)** by CPCB for local bodies, State Pollution Control Boards (SPCBs) and CPCB, to inventorize details of SUP production/ sale & usage in commercial establishments at district level, and on-ground enforcement of ban on SUP.
- **Industrial production of [Graphene from Waste Plastic](#)** by National Institute of Health and Environment & National Research Development Corporation to promote more industries to come forward to upcycle plastic waste.

What is Plastic Waste?

- Unlike other forms of wastes like paper, food peels, leaves etc, which are biodegradable (capable of being decomposed by bacteria or other living organisms) in nature, **plastic waste because of its non-biodegradable nature persists into the environment**, for hundreds (or even thousands) of years.
- Plastic pollution is **caused by the accumulation of plastic waste in the environment**. It can be categorised in **primary plastics**, such as cigarette butts and bottle caps, or **secondary plastics**, resulting from the degradation of the primary ones.

- Plastic has become one of the **most pressing environmental issues** that we are facing today.
 - **India** is generating about **3.5 million tonnes of plastic waste annually and the per capita plastic waste generation has almost doubled over the last five years.**
- Plastic pollution **adversely affects our ecosystems and is also linked to air pollution.**

What are the Major Challenges to Plastic Waste Management?

- **Mismanaged Plastic Waste (plastic dumped openly):** In the form of microplastics/microbeads when plastic enters the environment via inland waterways, wastewater outflows, and transport by wind or tides cannot all be filtered out once it enters the ocean.
 - As plastics travel with ocean currents, an island of trash called the Great Pacific Garbage Patch has been created.
- **Spurious Biodegradable Plastic:** In the **absence of robust testing and certification** to verify claims made by producers, spurious biodegradable and compostable plastics are entering the marketplace.
- **Online or E-Commerce Companies:** Apart from the plastic we consume through traditional retail, **the popularity of online retail and food delivery apps, though restricted to big cities, is contributing to the rise in plastic waste.**
- **Microplastics:** After entering into the aquatic environment, **microplastics** can travel vast distances floating in seawater, or sediment to the seabed. A recent study has revealed that microplastics in the atmosphere are trapped by the clouds and the falling snow.
 - **Microplastic particles** are commonly white or opaque in colour, which are commonly mistaken by many surface-feeding fishes as food (plankton) and can even move up the food chain to human consumers (from eating contaminated fish/seafood/shellfish).
- **Marine Litter:** Plastic pollution in freshwater and marine environments have been identified as a global problem and it is estimated that plastic pollution accounts for **60-80% of marine plastic waste.**
- **Terrestrial Plastic:** 80% of plastic pollution originates from land-based sources with the remainder from ocean-based sources (fishing nets, fishing ropes).

What are other Related Initiatives?

- [Swachh Bharat Mission](#)
- [India Plastics Pact](#)
- [Project REPLAN](#)
- [Un-Plastic Collective](#)
- [GoLitter Partnerships Project](#)

Way Forward

- **Raising awareness amongst the public** of the harm caused by plastic pollution through education and outreach programs to modify behaviour.
- **Finding substitutes for use-and-throw plastic** and ensuring alternative livelihoods for producers, waste pickers and other groups involved in the business will go a long way in solving the problem.
- The government should not only place fines for not adhering to the guidelines but **incentivise producers to switch to more sustainable products.** Along with proper monitoring, promoting responsible consumerism is very important.
- **Identify and engage key stakeholder** groups like retailers, consumers, industry representatives, local government, manufacturers, civil society, environmental groups, and tourism associations in order to ensure broad buy-in.
- Citizens also have to **bring behavioural change and contribute by not littering** and helping in waste segregation and waste management.

UPSC Civil Services Examination, Previous Year Questions (PYQs):

Q. Bisphenol A (BPA), a cause of concern, is a structural/ key component in the manufacture of which of the following kinds of plastics?

- (a) Low-density polyethylene
- (b) Polycarbonate
- (c) Polyethylene terephthalate
- (d) Polyvinyl chloride

Ans: (b)

- Bisphenol A (BPA) is a chemical produced in large quantities, primarily for the use in the production of polycarbonate plastics and epoxy resins.

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)

Source: PIB

PDF Reference URL: <https://www.drishtiias.com/printpdf/green-initiatives-for-effective-plastic-waste-management>