



## Tackling plastic waste

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**(Mains GS 3 : Environment Conservation, Environmental pollution and degradation & Environmental impact assessment)**

### Context:

Recently, the Environment Ministry published draft regulations on Extended Producer Responsibility (EPR) which according to many experts, disregard the commitments made by the Solid Waste Management Rules, 2016; the Plastic Waste Management Rules, 2016; and the **Swachh Bharat Mission (SBM)** as these regulations denote a backslide, particularly with respect to integration of the informal sector.

### Problems due to Plastic:

- The visibility of plastic waste is increasing because of its accumulation in recent decades and its negative impact on the surrounding environment and human health.
- Plastic waste is causing floods by clogging drains, causing respiratory issues when burned, shortening animal lifespans when consumed, and contaminating water bodies when dumped into canals and oceans.
- Under ultraviolet light from the sun, plastic is degrading into “microplastics” that are almost impossible to recover and that are disrupting food chains and degrading natural habitats.

### Retrogressive guidelines:

- EPR requires the manufacturer of a product, or the party that introduces the product into the community, to take responsibility for its life cycle.

- An FMCG company should not only account for the costs of making, packing and distributing a packet of chips, but also for the collection and recycling/reuse of the packet.
- In India, producers have externalised these costs due to the presence of a robust informal sector composed of waste pickers.
- By failing to mention waste pickers or outlining mechanisms for their incorporation under EPR, the guidelines are retrogressive.
- An effective EPR framework should address the issue of plastics and plastic waste management in tandem with the existing machinery, minimise duplication and lead to a positive environmental impact, with monitoring mechanisms including penalties for non-compliance.

### **Undermine role of waste pickers:**

- For decades, waste pickers, working in dangerous and unsanitary conditions, formed the base of a pyramid that included scrap dealers, aggregators and re-processors.
- This pyramid has internalised the plastic waste management costs of large producers by diverting waste towards recycling and reuse.
- Waste pickers also subsidise local governments responsible for solid waste management and reduce the amount of waste accumulating in cities, water bodies and dumpsites and increase recycling and reuse, creating environmental and public health benefits.

### **Remain invisible:**

- Between 1.5 and 4 million waste pickers in India work without social security, health insurance, minimum wages or basic protective gear.
- The **SBM** Plastic Waste Book attributes India's high recycling rate to the informal sector but the EPR guidelines not only disregard waste pickers and don't involve them as stakeholders in formulating the guidelines, but also direct producers to set up a private, parallel plastic waste collection and recycling chain.
- This is akin to dispossessing waste pickers of their means of livelihood as all plastic waste, contributing up to 60% of their incomes, will likely be siphoned away from them and channelised into the new chain.

### **Make guidelines inclusive:**

- EPR funds could be deployed for mapping and registration of the informal sector actors, building their capacity, upgrading infrastructure, promoting technology transfer, and creating closed loop feedback and monitoring mechanisms.
- For easily recycled plastics, EPR requirements could have been fulfilled by formalising and documenting the work of the informal sector and adequately compensating them.
- Without strong government regulation, the millions of workers who have shouldered the burden of waste management for decades will stand to lose their livelihoods.

### **Limited to plastic packaging:**

- While a large part of plastics produced are single-use or throwaway plastic packaging, there are other multi-material plastic items like sanitary pads, chappals, and polyester that pose a huge waste management challenge today, but have been left out of the scope of EPR.
- Plastic packaging can be roughly grouped into three categories: recyclable and effectively handled by the informal sector, technologically recyclable but not economically viable to recycle, technologically challenging to recycle (or non-recyclable).
- In keeping with the EPR objective that all recyclable plastics are effectively recycled at the cost of the producer, the government could support and strengthen the informal recycling chain by bridging gaps in adequate physical spaces, infrastructure, etc.

### **Costs of recycling:**

- Typically flexible plastics like LDPE and PP bags are recyclable, but due to their contamination with organic waste, light weight, and high volume, the costs of recycling are prohibitively expensive relative to the market value of the output.
- Market value for these plastics can be increased by increasing the demand for and use of recycled plastics in packaging, thus creating the value to accommodate the current costs of recycling.
- The mandated use of recycled plastics, as prescribed in the draft regulations, is a strong policy mechanism to create this value.

### **Recycling process:**

- Processes like waste-to-energy, co-processing and incineration have been proven to release carbon dioxide, particulate matter, harmful dioxins and furans which have negative climate and health impacts.
- Technologies like chemical recycling and pyrolysis are capital-intensive, yielding low returns and running into frequent breakdowns and technological problems along with releasing carbon dioxide and other pollutants.
- While the environmental impact and desirability of these processes continues to be debated, the draft regulations legitimise them to justify the continued production of multi-layered plastics.

### **Conclusion:**

- The final guidelines on EPR need to involve informal workers and exclude those plastics which are already efficiently recycled and to include other plastic and multi-material items.

- Further end-of-life processing technologies should be closely evaluated, based not only on their health and environmental impacts, but also on the implications for continued production of low-quality and multi-layered plastics.