

Plastic, due its multiple applications, stability, versatility, lightness, and the ability to be airtight, offer security to a product, has advanced its use in the packaging industry, making it the material of choice over other traditional packaging materials like glass, metal and paper. It has found its use across sectors like fast moving consumer goods, food and beverages, household products, personal care etc.

However, the very same qualities also pose many environmental challenges, when the packaging is discarded as waste. 'Plastic Waste' defined under Plastic Waste Management Rules 2016 says 'any plastic discarded after use or after their intended use is over'. Plastic waste that finds its way in the country's municipal solid waste management comprises mainly of product packaging in the form of sachets, pouches, bottle, blister pack, containers, film, wraps, tubes, composite materials, caps, foil, zip locks, covers, woven bags, carry bags etc.

A large part of them, given its composite nature (laminates or multilayer coextruded films) at present are non-recyclable. And this in turn sets a sequence in motion – no salvage value, expensive proposition to collect, sort, store, hence discarded to be landfilled, or littered on the streets, water bodies or burnt with leaves and other waste materials. This post-consumer packaging waste is referred to as 'Branded Litter'.

"The Indian packaging industry is valued at over USD 32 Bn and offers employment to more than 10 lakh people across the country through ~10,000 firms. Packaging is one of the fastest growing industries and stands at USD 700 billion globally. It has grown higher than GDP in most of the countries. In developing country like India, it grew at a CAGR of 16% in the last five years and touched ~USD 32 Bn in FY 15."

- The Federation of Indian Chambers of Commerce & Industry (FICCI) & TATA Strategic Management Group (TSMG) Report on the Plastic Industry in 2016.







BANGALORE WASTE AND BRAND AUDIT

3 DAYS **8 LOCATIONS** 5 DWCCs **3 PUBLIC PLACES**







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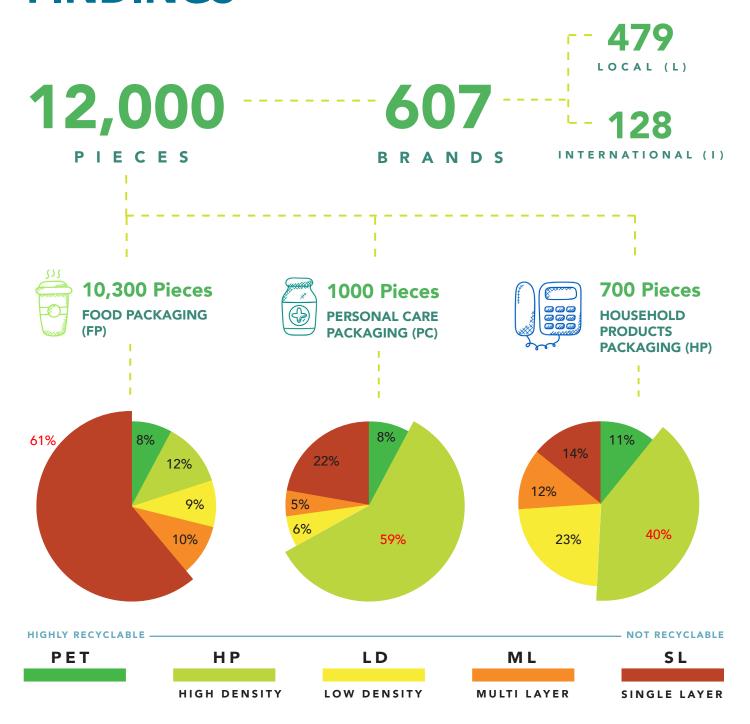
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FINDINGS





TOP POLLUTERS:



FOOD PACKAGING

INTERNATIONAL (I)



















LOCAL (L)



























Hilgiris'













PERSONAL CARE PACKAGING

INTERNATIONAL (I)









LOCAL (L)



























INTERNATIONAL (I)









RECOMMENDATIONS

under the scope of the Plastic Waste Management Rules 2016 - 2018 and the Solid Waste Management Rules 2016

RULES:

It is therefore recommended that the **Brand Owners, Manufacturers and Producers of Plastic packaging**waste should immediately within the stated timelines take up the implementation of the Plastic Waste
Management Rules 2016-2018 – Rule 9 which states as follows:

- a. The producers, within a period of **six months** from the date of publication of these Rules, shall work out modalities for **waste collection system** based on Extended Producers Responsibility and involving State Urban Development Departments, either individually or collectively, through their own distribution channel or through the local body concerned.
- b. Primary responsibility for collection of used multi-layered plastic sachet or pouches or packaging is of Producers, Importers and Brand Owners who introduce the products in the market. They need to establish a system for collecting back the plastic waste generated due to their products. This plan of collection to be submitted to the State Pollution Control Boards while applying for Consent to Establish or Operate or Renewal. The Brand Owners whose consent has been renewed before the notification of these Rules shall submit such plan within one year from the date of notification of these Rules and implement with two years thereafter.
- c. Manufacture and use of multi-layered plastic which is non-recyclable, or non-energy recoverable or with no alternate use, if any should be phased out in Two

Such Waste collection systems should be implemented within the shortest possible timelines for collecting back from: a.Bulk Waste Generators, (Malls, Hotels, Tech parks, Industry Associations, Temples, Markets) which generate large quantum of Branded Litter

- b.Commercial and Shopping Districts, along with Traders associations
- 1. Set up **supporting infrastructure** for collection, sorting and aggregation
- a.Set up /upgrade infrastructure of the Dry waste collection Centres
- b.Set up Aggregation Centres
- c.Ensure maximising of recovery and diversion from Landfills.

- 2. All waste collection plans established for collecting the Plastic waste should
- a. Have mandatory *inclusion of waste pickers* as outlined in the SWM Rules 2016
- b.Create salvage value through **buy back** to ensure sustainable and financially viable operating models
- 3. The Plastic waste management Rules should lay out the *hierarchy of plastic waste management*.
 - a. Reduction (eg. through bans of single use disposables)
 - b. Segregated recovery from source,
 - c. Recycling or Alternative treatment options of plastic waste should also be laid down with supporting quantified targets for each kind of plastic type that is used by the Producers in the order of preference:
 - i. Primary recycling to the same or similar product, up-cycling or alternative treatment.
 - ii. Secondary recycling to a different product.
 - iii. Tertiary recycling to a chemical or fuel.
 - d. Energy recovery through Pyrolysis and gasification or co-processing should be limited to only plastic waste that cannot be recycled or reused and further capped with cautionary riders on quantities that can be disposed through these methods, given the extreme hazardous, polluting and expensive nature of these processes
- 4. With regard to **Redesign** the Plastic Waste Management Rules should direct that :
 - a. Till such time that multilayer film and laminate is phased out, Sachet packaging sizes should not go below a defined medium size packaging. Micro and mini sizes of packaging are difficult to salvage and recover
 - b. Ensure Brand Labelling of all Multi-piece packaging to make it identifiable
 - c. Straws that form part of integrated packaging to be immediately stopped
 - d. Allowing redesign shift into Bio plastics (Rule 4H of PWM Rules 2016) is not recommended, as experience of other countries has shown that there is a dangerous trend of monocropping and allows for imitation and poor quality substitutes.
- 5. The SWM Rules 2016 lay down that Industry associations, Tech parks, Corporate campuses, Malls, SEZ to invest 5% of the plot areas have to reserve for setting up of *recycling facilities*, the same should be enforced at the time of approving building plan. This should be immediately enforced.

RECOMMENDATIONS

Policy Resolution for Petrochemicals 2007

- 6. Redefine the thrust area for the plastic industry to include 'safe' packaging for processing foods and all other plastics used by the Food and Beverage industry and not just cost effective plastics. Set packaging norms and regulate it, through verification of the technologies, its toxicity, safety for contact with food items . Have third party published studies to study the impact of plastics on health and take corrective measures in a timely manner.
- 7. Integrate the working of the *informal or semi-formal hubs* and upgrade them as Plastic Parks for Plastic recycling, as envisaged under the Policy
- 8. Use the **Petrochemical Research and Development Fund**, as outlined in the Policy for the development of projects of waste management, recycling, carrying out of Life Cycle Assessments of plastics specially used in packaging by the FMCG industry
- 9. The policy in the context of Plastics and the Environment, states that Plastics can be recycled and is not harmful to the environment. The Plastic Development Council and the CIPET should not turn a blind eye to and should necessarily carry out studies and advise on relevant updates to the Policy on the strategies and the mitigation measures that can be adopted to curtail and **control the impact of plastic pollution on the environment, on human health.**
- 10. The various **resolutions** (**See Box**) laid down should be immediately implemented.
- 11. Set up strict norms for new packaging that is developed and ensure that it is certified on the parameter of **Life Cycle Assessment** to monitor the introduction of sustainable packaging.
- 12. Set *packaging norms* and regulate it, through verification of the technologies, its toxicity, safety for contact with food items to avoid situations like the waxed cups, BPA in plastic, especially food grade plastic

- 1. The Plastic Development Council should come out with continuous and aggressive Information and **Educational Campaigns** on how to stop littering, how to segregate to promote recovery and promotion of recycled plastic products in non critical areas.
- 2. To immediately take up the promotion of Plastic Waste management through the polymer/plastic industry, Indian Centre for Plastics in the Environment and other organisations to take up community awareness Program on safe use of plastics through continuous and voluntary information and education and communication (IEC) campaigns with a view to achieve visible results
- 3. The various bodies identified to initiate the projects under waste management to **control littering**, to promote better collection and recovery of plastic waste from Communities
- 4. To support **Urban Local Bodies** and strengthen their capabilities to effectively deal with issues relating to plastic waste management.
- 5. To review the policy of restrictions on **import of plastic waste/scrap**.





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