

# Petrochemicals & Polymers

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**Single-use plastic ban to have  
limited impact on resin  
manufacturers**

**JULY 2022**





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*ICRA expects the impact on resin manufacturers to be limited as they would switch production to alternate grades*



The Ministry of Environment, Forest and Climate Change notified the Plastic Waste Management Amendment Rules, 2021. The rules mandate a ban from July 1, 2022, on manufacturing, import, stocking, distribution, sale, and use of certain single-use plastic (SUP) items.



The Government looked at a three-pronged strategy for the ban high littering potential, low utility and availability of alternatives



The ban would target only 2-3% of the total plastic produced in the country



FMCG industry remains mostly unaffected as multi-layer packaging isn't included among banned items



Demand for single-use plastics has been on an upward trajectory due to rapid growth of packaged foods, food delivery, quick-commerce and e-commerce, all of which are pushing up packaging demand



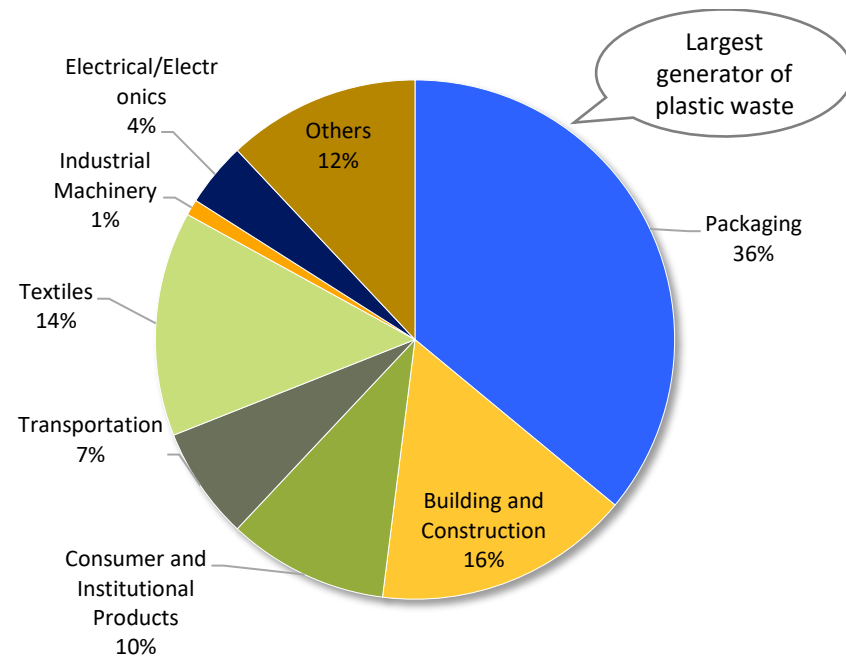
Local production capacity is unable to match the increased demand for alternatives like paper straw and hence companies are relying on costlier imports



Resin manufacturers would switch production to permissible grades and largely remain unaffected. Any impact on sales can be made up by growth in other segments

- Single-use plastics include items intended to be used only once before they are thrown away or recycled. These include, among other items, grocery bags, food packaging, bottles, straws, containers, cups and cutlery
- Most plastics in use today are virgin plastics, made from crude oil or gas. Global production of plastics from recycled plastics is still only 6% of the size of total plastics production
- Global plastic waste generation more than doubled from 2000 to 2019 to 353 million tonnes
- In September 2016, France became the first country to ban plastic cups, plates and utensils while Bangladesh was the first country in the world to ban thinner plastic bags in 2002
- Bans and taxes on single-use plastics exist in more than 120 countries. However, most regulations are limited to items like plastic bags, which make up a small proportion of the plastic waste
- COVID-19 crisis led to a 2.2% decrease in plastics use in, but a rise in food takeaway packaging and plastic medical equipment has increased littering
- It can take 500 years for an LDPE plastic bag to degrade in a landfill whereas the useful life of these items is about 12-15 minutes
- 40% of the plastic waste comes from packaging, 12% from consumer goods and 11% from clothing and textiles

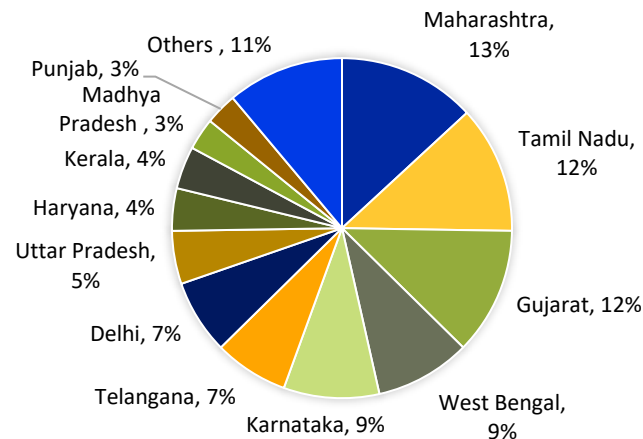
**Exhibit: Global plastic production by sector**



Source: Industry, ICRA Research

- The Ministry of Environment, Forest and Climate Change notified the Plastic Waste Management Amendment Rules, 2021. The rules mandate a ban from July 1, 2022, on manufacturing, import, stocking, distribution, sale, and use of certain single-use plastic items. The ban covers rigid plastic items such as plates, cups, glasses, cutlery, PVC banners less than 100 micron, straws, stirrers etc.
- The Government looked at a three-pronged strategy for the ban
  - High littering potential
  - Low utility
  - Availability of alternative
- The ban would target only 2-3% of the total plastic produced in the country
- The FMCG industry remains mostly unaffected as multi-layer packaging used in FMCG goods has not been banned due to lack of alternatives
- India generates plastic waste of ~3.5 million tonnes per annum and the per capita plastic waste generated is about 2.5 kg. The per capita waste generation in India is lower than 221 kg of the US and 69 kg of South Korea and Japan
- In September 2019, the Government of India announced its decision to ban the use of six items of single-use plastic including plastic bags, cups, plates, small bottles, straws and certain types of sachets. The ban, which was to be implemented from October 2, 2019, was put off by the GoI as it was too disruptive at a time when the economy is coping with a slowdown and job losses

**Exhibit: State-wise share of plastic waste**



Source: Central Pollution Control Board, Delhi, ICRA Research

- Top five states (Maharashtra, Tamil Nadu, Gujarat, West Bengal and Karnataka) account for 55% of the waste generated in the country
- Several states have banned plastic bags, containers such as Himachal Pradesh, Haryana, Panjab, Karnataka, Delhi etc. but there has been limited impact owing to poor enforcement

# Single-use plastic banned

Banned Item	Affected Type of Plastic
Plastic Sticks / straws	Polypropylene
Cutlery items	Polystyrene, polypropylene
Packaging / wrapping Films	PVDC, PVC, and polyethylene
PVC banner <100microns	PVC
Bag <75 microns	HDPE, LDPE, LLDPE
Polystyrene for decoration	Polystyrene

As per items banned, demand for above listed types of plastics would be affected. However, it should be noted that these plastics have wide use and hence any impact should be limited to short run

Type of Plastic	Single-use Item
HDPE	Milk bottles, shampoo bottles, ice-cream containers
LDPE	Food packaging films, bags, trays
PET	Bottles for water and cold-drinks, biscuit trays
Polystyrene	Cutlery, plates, cups
PP	Microwave dishes, potato chip bags, bottle caps
EPS	Insulated food packaging, packaging fragile items

Above listed items are SUP but some of these don't appear under purview of the current ban.



## Growing Demand

Demand for SUPs has been on an upward trajectory in India due to rapid growth of packaged foods, food delivery, quick-commerce and e-commerce, all of which are pushing up packaging demand



## Supply Crunch

Local production capacity is unable to match the increased demand for alternatives like paper straw and hence companies are relying on costlier imports



## Increased Cost

As alternatives are costlier than their SUP counterpart, the ban would affect the bottom-line of the stakeholders



## Regulatory Uncertainty

Any shift to alternatives like bio-plastic by food industry would require regulatory and safety approvals



## Resin Manufacturer

Resin manufacturers are large players with a diversified market. They would switch production to permissible grades and largely remain unaffected. Any impact on sales can be made up by growth in other segments.



## Plastic Processors

Companies with a broader product mix would be in a better position to limit harm to their business. However, small units involved in manufacturing a particular item (for ex: disposable plates), would be adversely impacted



## Flexible Packaging Manufacturers

These are organised players with strong linkages with FMCG, electronic items makers etc.; these companies procure raw materials from BOPET/BOPP manufacturers. Most packaging being catered to by this segment is not impacted. However, these may be vulnerable in case of further bans in future or brand owners switching to alternative packaging



## BOPP and BOPET Manufacturers

60% of their consumption is by FMCG sector which is mostly out of the purview of the current ban. Any restriction on these can only be expected when an alternative is available



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