

# The Single use Plastic Ban: An Innovative Initiative for Environmental Protection

Dr. Maya Agarwal

Assistant Professor, Department of Business Administration, SPC Govt. College, Ajmer, Rajasthan, India

## ABSTRACT

Prime Minister Narendra Modi first announced that single-use plastics would be banned on 15 August 2019. Subsequently, a notification for the ban was issued in August 2021, mandating the formation of task forces in states and at the Centre to oversee its pan-India implementation. The Centre has banned the use of 'single-use plastic' from July 1, 2022. The Ministry for Environment, Forest and Climate Change had issued a gazette notification last year announcing the ban, and has now defined a list of items that will be banned from next month. "The manufacture, import, stocking, distribution, sale and use of following single-use plastic, including polystyrene and expanded polystyrene, commodities shall be prohibited with effect from the 1st July, 2022," says the Ministry notification. As the name suggests, it refers to plastic items that are used once and discarded. Single-use plastic has among the highest shares of plastic manufactured and used — from packaging of items, to bottles (shampoo, detergents, cosmetics), polythene bags, face masks, coffee cups, cling film, trash bags, food packaging etc. The items on which the Central Pollution Control Board (CPCB) have announced a ban are earbuds; balloon sticks; candy and ice-cream sticks; cutlery items including plates, cups, glasses, forks, spoons, knives, trays; sweet boxes; invitation cards; cigarette packs; PVC banners measuring under 100 microns; and polystyrene for decoration.

## INTRODUCTION

SUP (Single Use Plastic) is plastic produced and designed to be thrown away after being used only once. By that definition, a large number of products fall in the category. These include everything from a disposable straw to a disposable syringe. [1,2]

India has defined SUP as "a plastic commodity intended to be used once for the same purpose before being disposed of or recycled" in its Plastic Waste Management Amendment Rules, 2021. The identification of single-use plastic items to be phased out was done on the basis of a report by an expert committee constituted by the Department of Chemicals and Petrochemicals (DCPC), under the direction of the Union Ministry of Chemicals and Fertilizers on SUP.

The expert committee comprised policy makers, scientists, academicians and researchers in the field of plastic and allied materials. The assessment was conducted by DCPC by comparing two pillars — the

*How to cite this paper:* Dr. Maya Agarwal "The Single use Plastic Ban: An Innovative Initiative for Environmental Protection" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-6 | Issue-6, October 2022, pp.569-574, URL: www.ijtsrd.com/papers/ijtsrd51918.pdf



Copyright © 2022 by author(s) and International Journal of Trend in Scientific Research and Development Journal. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0) (<http://creativecommons.org/licenses/by/4.0>)



**KEYWORDS:** single use plastic, ban, environmental, protection, polythene, ministry, CPCB

utility index of a particular type of SUP and the environmental impact of the same.

Utility Index-parameters (100)	Environmental impact-parameters (100)
Hygiene (20)	Collectability (20)
Product safety (20)	Recyclability (20)
Essentiality (20)	Possibility of end of life solutions (20)
Social impact (20)	Environmental impact of alternate products (20)
Economic impact (20)	Littering propensity (20)

## Methodology for assessment

Each factor was assigned 20 points, which added up to each pillar having a total of 100 points.

The product that scores low on utility and high on environmental impact should be considered for immediate phase out.

Methodologically, the 20 items listed for phasing out have followed the protocol. Most of the items listed for phase out are mostly produced by local, small and medium plastic manufacturers, who supply products without branding.

Some items which are also low on utility index and high on environmental impact as per the scores assigned by the study, however, have not been

considered for phasing out. This leaves the big corporations least affected.

Starting from September 30, 2021 through July 1, 2022, SUPs — mostly those manufactured by small and medium industries — will be phased out. [3,4]

The schedule does not cover a range of SUPs generated by fast-moving consumer goods companies.

Category	Item no.	Item name	Phase out date
1	Carry bags		
	1	Carry bag made of virgin or recycled plastic less than 75 microns in thickness	30.09.2021
	2	Carry bag made of virgin or recycled plastic less than 120 microns in thickness	31.12.2022
2	Non-woven plastic carry bags		30.09.2021
	3	Non-woven plastic carry bag less than 60 GSM (Grams per square meter) or 240 microns in thickness	
3	Single use plastic (including polystyrene & expanded polystyrene) items		1.7.2022
	4	Ear buds with plastic sticks	
	5	Plastic sticks for balloons	
	6	Plastic flags	
	7	Candy sticks	
	8	Ice-cream sticks	
	9	Polystyrene (thermocool) for decoration	
	10	Plates	
	11	Cups	
	12	Glasses	
	13	Forks	
	14	Spoons	
	15	Knives	
	16	Straw	
	17	Trays	
	18	Wrapping or packing films around sweet boxes, invitation cards and cigarette packets	
	19	Plastic PVC banners less than 100 microns	
20	Stirrers		

Plastic packaging (flexible and rigid) contributes to almost 60 per cent of the total plastic waste generated, according to a report by the Centre for Science and Environment, a Delhi-based non-profit, titled Plastic Recycling-Decoded based on industry estimates. A lot of this packaging is discarded within minutes or days of being used.

Plastic packaging waste, inscrutably, is not listed for being phased out. It was proposed to be collected and managed in an environmentally sustainable way through the extended producer responsibility (EPR) of the producer, importer and brand owner (PIBO), according to the Plastic Waste Management Rules, 2016.

The Single Use Plastic Deathbed is an art installation at Freedom Ghat on the bank of Ganga river near

Laxman Jhula in Rishikesh, Uttarakhand, India. It features three funeral pyres made from single use plastic waste. It was opened in December 2020.[5,6]

### Discussion

Producers of plastic waste, within a period of six months from the publication of Plastic Waste Management Rules 2016, were supposed to “work out modalities for a waste collection system based on extended producer responsibility involving state urban development departments, either individually or collectively, through their distribution channel or through the local body concerned”.

Five years later, the EPR for plastic waste management remains only on paper, due to non-compliance by PIBOs and weak enforcement by authorities.

The ministry's assumption that the PIBOs would start complying now is puzzling.

Many brand owners wrap their EPR mandate of plastic waste collection as corporate social responsibility and present it as a voluntary service to the society by collecting plastic waste generated by them.

After the latest notification, this malpractice will become more common.

India used 18.45 million tonnes of plastic in the year 2018, according to industry estimates. The plastic produced in the same time period was 17 million tonnes. The global standard is that one per cent of all the plastic generated is biodegradable and can be composted.

This means, India needs to collect 170,000 tonnes of post-consumer compostable plastic and should have industrial composting units to deal with this stream of plastic waste.

Awareness around compostable plastics is very low. It is perceived that a compostable plastic can be littered or added to your home / community compost pit that will reduce it to simpler compounds like carbon-di-oxide and water vapour.

It's imperative to make consumers understand that this is not how it works: Compostable plastics can only be composted only in industrial composting facilities under the right set of controlled parameters.

India, with its current waste management system, is not ready for compostable plastics as they end up contaminating the potentially recyclable plastic. This adds to labour costs and further reduces the overall efficiency of plastic waste recycling in the country.

Moreover, the number of industrial composting units present in the country is something that no one is talking about. If we are promoting compostable plastics, where are our industrial composting units

Multi-layered plastics (MLP) were proposed to be banned in the Plastic Waste Management Rules, 2016. [7,8]

The 2018 amendment introduced new narratives like "energy recovery" and "alternate use".

The amendment notified phase out of MLP that was non-recyclable and non-energy recoverable, making the phase out redundant.

## Results

Rapid economic growth has fuelled demand for goods that come with single-use plastic products, such as straws and disposable cutlery.

But India, which uses about 14 million tonnes of plastic annually, lacks an organised system for managing plastic waste, leading to widespread littering.

Streets across towns are littered with used plastic goods that eventually choke drains, rivers and oceans and also kill animals.[9,10]

India's ban on single-use plastic items includes straws, cutlery, ear buds, packaging films, plastic sticks for balloons, candy and ice-cream, and cigarette packets, among other products, Prime Minister Narendra Modi's government said in a statement.

PepsiCo (PEP.O), Coca-Cola Co (KO.N), India's Parle Agro, Dabur (DABU.NS) and Amul had lobbied for straws to be exempted from the ban. read more

In a relief to consumers, the government has for now exempted plastic bags but it has asked manufacturers and importers to raise the thickness to promote reuse.

Other than the food and beverage and consumer goods companies, plastic manufacturers have also complained about the ban that they say did not give them adequate time to prepare for the restriction.

Some experts believe that enforcing the ban might be difficult. The government has decided to set up control rooms to check any illegal use, sale and distribution of single-use plastic products.

According to the United Nations, plastic waste is at epidemic proportions in the world's oceans, with an estimated 100 million tonnes dumped there. Scientists have found large amounts of micro plastic in the intestines of deep-dwelling ocean mammals like whales.

In India, The final selection of items to be included in the "low utility" SUP items category was based on the recommendations of a committee constituted by the Ministry of Petrochemicals in 2019. [11,12]

Noting that several of the recommended items (such as plastic bags) had already been banned by states, the committee said in its report that "the responsibility of the local bodies in managing plastic waste, and the responsibility of producers/ importers/ brand owners/ Extended Producers Responsibility (EPR), have not been fulfilled".

As many as 25 states, including Maharashtra (which generates the most plastic waste), have banned plastic bags, but these bans have been largely ineffective because of the widespread use of these items.

Extended Producer Responsibility (EPR) is a principle requiring manufacturers of plastic items to collect and recycle their products so they do not become a hazard to the environment after disposal.

“The implementation of EPR is a challenge because of post-consumer waste. There’s a huge amount of littering, making it difficult for manufacturers to get back the waste. There are not enough channels or infrastructure to ensure it comes back to us,” said Hitendra Bheda.

The Plastic Waste Management Rules of 2022 have tightened the mandates of EPR, requiring manufacturers to collect a higher target of plastic waste in a shorter period of time.

While the ban attempts to reduce the amount of plastic in circulation throughout the country, it is unlikely to address the root cause of India’s mounting garbage problem: the lack of waste segregation. [13,14]

Without waste segregation, the recycling and incineration of waste, including dry plastics, is much harder than if it were segregated.

The Maharashtra government has become the first state in the country to ban single-use plastic. In real terms, this means, dishes, plates, cups, glasses, and more, with plastic coating and lamination are being sold as paper products.

Keeping in view the problems caused by the use of plastic in the state, the Maharashtra government has directed the officials to improve the plastic ban rules. A committee was formed to implement the plastic ban in the state. This committee had decided to amend the notification 2018 related to Maharashtra Plastics and Thermocol Products on 7 July.

Under the same decision, the state government, through a notification dated 15 July, imposed a ban on products with plastic coating and lamination. These include plastic-coated and laminated disposable dishes, cups, plates, glasses, fork, bowl and container (single-use products) made from paper or aluminium. [15]

As readers of What Packaging? will recall, on 23 March 2018, the Maharashtra government imposed a ban on the manufacturing, use, sale, distribution and storage of plastic materials such as one-time-use bags, spoons, plates, PET and PETE bottles, and thermocol items. The government had then given three months’ time for disposal of the existing stock.

As per reports, 650 MSME units in Halol in Gujarat have shut due to the trickle-down effect of the single-use plastic ban. The Halol Small Scale Plastic

Welfare Association has reached out to the state administration and have requested the Gujarat chief minister to allow 75-micron plastic products even after 31 December 2022, instead of changing the mandatory product requirement to 120-microns.

Meanwhile, 400 litres of water packets were destroyed during an inspection by the Zonal Commissioner VII and sanitation staff in Visakhapatnam. The team also created awareness about single-use plastic ban under the Swachh Survekshan project. Innumerable schools across the state organised drawing competitions for school students on the topic of Swachh Bharat, segregation of waste, and ban on single-use plastic. [16]

### Conclusions

So far, the ban has been effective in pockets. The Pollution Control Board officials in various cities and towns across India have been carrying out enforcement drives. As per reports trickling in, the ban has had an effect on disposable plastics such as straws, cutlery, headphones, cigarette packs and plastic balloons. A large number of industry forums across India have upheld the government's ban.

Meanwhile, the official account of Swachh Bharat Mission (Urban) 2.0 issued a statement, "Source segregation has shown conspicuous results in the country's sanitation drive. Many cities have successfully implemented 100% source segregation with the help of citizens participation."

Saurabh Agarwal, senior director and general manager, LPM - South Asia, Avery Dennison, said, “The government’s decision to implement a ban on single-use plastic is a welcome move since it supports the green initiative of curbing pollution and health hazards and leads to environmental sustainability.

However, in order to make this decision a success, we would need to look at the replacement of plastic products with environmentally friendly substitutes and more viable alternatives. We would need to invest in research and development and look for more innovative technologies to develop alternative products.” [17]

Celebrities such as Dia Mirza (who is also the goodwill ambassador at UNEP, UN Secretary General's Advocate for SDGs, Wildlife Trust of India) tweeted, "This single-use plastic (SUP) is ours now to implement. Let’s do our bit to ensure we refuse all SUPs."

Dr Ravindra Khaiwal, the public health, environmental health, air pollution - and working for better earth for all at PGIMER, Chandigarh as a professor said, "Banning single-use plastics impacts

our health." He explained how plastics degrade into microplastics after entering the ecosystem. These microplastics act as a platform for the growth of pathogenic microorganisms. And we could do without pathogens.

He added, "Remember, plastic is not an issue, but how we use and dispose of is crucial." Dr Khaiwal felt, "India can play a leadership role in demonstrating the world to protect the environment and promote sustainability."

Meanwhile, the Central Pollution Control Board (CPCB) launched an app where you can scan and lodge a complaint about the single use plastic. For violators, there is a prescribed punishment, which is mandated by the Environmental Ministry of India. The CPCB social media site also requested citizens to "stop the use of plastic sheets to cover invitation cards. Also, as a responsible citizen, let's not accept the sweet boxes wrapped with plastic sheets". CPCB stated, "As per SUP ban, plastic earbuds are banned from 1 July 2022. Hence, let's start using wooden stick earbuds or any such alternatives." An exhibition was arranged by the Department of Environment in Delhi NCT wherein they displayed alternatives to SUP such as corn starch, areca nut leaf, bagasse pulp, bamboo straws and more. Many NGOs and self-help groups participated in the "Say No to Single Use Plastic" exhibition and showcased paper products.

In addition, many awareness programmes were organised at various places in NCR by NGOs, student bodies and others. One programme - Plastic Heist - highlighted how one can get a cloth bag when you provide 10 plastic bags for recycling. These awareness drives have been running for months now and according to the Plastic Waste Management rule, all states and Union territories have conducted the commencement of the single-use plastic ban campaign from 1 July 2022. The government is attempting to inform and encourage plastic processors to switch to sustainable goods. However, the key to implementing the SUP ban successfully is raising consumer and public awareness. The government must educate everyone by introducing new school courses, hosting seminars, inspiring the populace with different initiatives, and obstructing the supply chain for huge SUP product manufacturers and their raw materials, among other things.

The ministry of environment, forest and climate change stated in a press release that control rooms will be set up at the national and state level for effective enforcement of the ban on identified SUP items. The control rooms will monitor the unauthorised production, importation, stocking,

distribution, sale, and use of items made of single-use plastic that are forbidden.

Meanwhile, CPCB Grievance Redressal App has been launched to empower citizens to help curb plastic menace. For wider public outreach, the Prakriti mascot was unveiled on 5 April.

In June, the India delegation led by Union Minister Dr Jitendra Singh attended the plenary session of the five-day UN Ocean Conference. During the session, Singh addressed the gathering in Lisbon, which saw governments of Kenya and Portugal being the co-hosts. He said that India is committed to protecting at least 30% of its lands, rivers and seas by 2030 in order to fulfil its 30x30 commitment.

This has been conveyed to the ministers, delegates, and representatives from more than 130 nations that we are at the UN summit to share with the world the PM's vision for the preservation and exploitation of the seas and their riches.

Following the UN Ocean Conference, India announced that it will begin a significant push to clean up the nation's 75 beaches. The 75-day awareness campaign "Swachh Sagar, Surakshit Sagar" was launched on 5 July and will culminate on 17 September in honour of International Coastal Cleanup Day. The initiative to clean up the shoreline will be the first of its kind and perhaps the longest in history.

Singh pointed out that India has undertaken a nationwide awareness campaign to clean the coastal areas, and this mission will soon become a mass movement. There are various alternatives to single use plastics. The use of banned plastic bags will now perhaps reduce to some extent, but not immediately.

There has been talk of beeswax-coated cloth as an eco-friendly alternative to single-use plastic. The proponent of this substrate, Supriya Sahu IAS (and Addl Chief Secretary Environment Climate Change & Forests, Govt of Tamil Nadu) said that "no cling film, aluminium foil or plastic is needed to pack food. Plus, it can be easily used multiple times."

Likewise, Stora Enso is poised to begin pilot production of a new, 100% bio-based alternative to PET plastics that it believes could be a "game changer" in the packaging industry. The Finland-headquartered group believes the material could replace plastic bottles, aluminium cans and glass jars for a wide variety of uses.

In India, Central Institute of Petroleum Chemical Engineering (CIPET) and the Ministry of Small and Medium Enterprises of India will establish a capacity-building workshop to provide technical support for

the manufacture of products to replace banned disposable plastics items.

As P Narendra of Pragati Offset shared with What Packaging? that over the next couple of years, the industry has to double its focus on eco-friendly packaging.

He said, "Plastic waste is one of the biggest contributors to pollution in the country. With the new norms in place, packaging board players should be ready with biodegradable packaging solutions and eco-friendly alternatives. The thing business owners should focus on is eco-friendly products. Plus monitoring of sustainability through cradle-to-grave tracking as well as better end user engagement.[18]

## References

- [1] Association of Southeast Asian Nations. 2019. ASEAN Framework of Action on Marine Debris. <https://environment.asean.org/wp-content/uploads/2019/06/ASEAN-Framework-of-Action-on-Marine-Debris-FINAL.pdf>
- [2] Center for International Environmental Law. 2019. The Hidden Costs of a Plastic Planet. <https://www.ciel.org/wp-content/uploads/2019/05/Plastic-and-Climate-FINAL-2019.pdf>
- [3] City of San Fernando, Pampanga. Presentation on Plastic Bag Ban. Unpublished.
- [4] Gerakan Indonesia Diet Kantong Plastic. Jakarta Announces Reducing Use of Single-use Plastic Bags. August 6, 2021. <https://dietkantongplastik.info/jakarta-umumkan-pengurangan-penggunaan-kantong-plastik-sekali-pakai/>
- [5] Geyer et. al. July 19, 2017. Production, Use, and Fate of all Plastics Ever Made in Science Advances. <https://advances.sciencemag.org/content/3/7/e1700782> DOI:10.1126/sciadv.1700782
- [6] Hoornweg, D. and Perinaz Bhada-Tata. 2012. What a Waste: A Global Review of Solid Waste Management. Urban development series; knowledge papers no. 15. World Bank, Washington, DC. World Bank. <https://openknowledge.worldbank.org/handle/10986/17388> License: CC BY 3.0 IGO
- [7] Library of Congress. China: Single-Use Plastic Straw and Bag Ban Takes Effect. March 23, 2021. <https://www.loc.gov/item/global-legal-monitor/2021-03-23/china-single-use-plastic-straw-and-bag-ban-takes-effect/>
- [8] Milan Sharma. August 13, 2021. Government Bans Manufacture, Sale, and Use of Identified Plastic Items from July 2022 <https://www.indiatoday.in/india/story/govt-bans-manufacture-sale-and-use-of-identified-single-use-plastic-itemsfrom-jul-1-2022-1840562-2021-08-13>
- [9] Nicavera, Erwin. November 28, 2019. San Carlos City Gets ASEAN Tourism Recognition Anew. <https://www.pna.gov.ph/articles/1087298>
- [10] Paul. Ruma. 2020. Bangladesh to Ban Single-Use Plastics in Hotels and Restaurants. <https://www.reuters.com/article/us-bangladesh-environment-plastic-idUSKBN1Z51BK>
- [11] World Economic Forum. January 2016. The New Plastics Economy: Rethinking the future of plastics. [http://www3.weforum.org/docs/WEF\\_The\\_New\\_Plastics\\_Economy.pdf](http://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf)
- [12] [https://www.niti.gov.in/sites/default/files/2021-10/Final\\_Handbook\\_PWM\\_10112021.pdf](https://www.niti.gov.in/sites/default/files/2021-10/Final_Handbook_PWM_10112021.pdf)
- [13] PIB Press Release on Centre writes to States to phase out Single Use Plastic dated June 4, 2022.
- [14] PIB Press Release on Policy on plastic waste handling dated March 24, 2022.
- [15] PIB Press Release on Government notifies Guidelines on Extended Producers Responsibility on plastic packaging under Plastic Waste Management Rules, 2016 dated February 18, 2022.
- [16] PIB Press Release on Closure of Plastic Manufacturing Units dated December 20, 2021.
- [17] PIB Press Release on Guidelines for Extended Producer Responsibility given legal force dated August 13, 2021.
- [18] <https://cpcb.nic.in/overview-of-plastic-waste/>