



Toxics Link
for a toxics-free world

REVISITING SINGLE USE PLASTIC BAN



About Toxics Link

Toxics Link is an Indian environmental research and advocacy organisation set up in 1998, engaged in disseminating information to help strengthen the campaign against toxics pollution, provide cleaner alternatives and bring together groups and people affected by these problems. Toxics Link has a unique expertise in areas of hazardous, plastic, medical and municipal wastes, international waste trade, and emerging issues of pesticides, Persistent Organic Pollutants (POPs), hazardous heavy metal contamination, etc. We have successfully implemented various best practices and have contributed to policy changes in the aforementioned areas apart from creating awareness among several stakeholder groups.

Toxics Link's Mission Statement - "Working together for environmental justice and freedom from toxics, we have taken upon ourselves to collect and share both information about the sources and the dangers of poisons in our environment and bodies, and information about clean and sustainable alternatives."

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Executive Summary

Plastics are widely used because of their versatility, unique physical and chemical properties, ease of production, and low cost compared to traditional alternatives like glass, metal, and ceramics (Milbreta, et al., 2025). In general, their lightweight, durability, resistance to water and heat, and cost-effectiveness make them highly suitable as packaging materials (Milbreta, et al., 2025). Owing to these advantages, plastics are used across almost every sector of the economy, including automobiles, agriculture, aviation, healthcare, industry, pharmaceuticals, and food. However, the same qualities that make plastics indispensable also make them environmentally persistent. Plastics accumulate in ecosystems, and over time break down into microplastics and nanoplastics—tiny particles that remain in the environment and often undetected by the naked eye.

Plastic waste is a major environmental concern globally, with plastics broadly categorised into macroplastics and microplastics. Microplastics, though microscopic, are pervasive and contribute significantly to pollution, yet they often go unnoticed. Macroplastics, on the other hand, are more visible but equally harmful, primarily due to their non-biodegradability, non-recyclable nature, and their multilayered structure that complicates waste management efforts. In many developing countries, including India, the improper disposal and accumulation of plastic waste are exacerbated by factors such as convenience, inadequate enforcement of regulations, and a lack of affordable alternatives.

To address the growing plastic waste crisis, the Government of India implemented a nationwide ban

on many single-use plastic (SUP) items, effective July 1, 2022 (MoEFCC, 2022). While this ban has led to a reduction in the availability of certain products, there are significant challenges in enforcement, and banned items continue to appear in markets, malls, and restaurants. This points to gaps in both enforcement and public awareness.

This report presents the second assessment of the effectiveness of India's SUP ban. In our previous (2023) study, we surveyed four cities of the country. For this update, we revisited three of those cities—Delhi, Mumbai and Guwahati, and a new Tier-2 city, Bhubaneswar, which has seen rapid urbanisation and economic growth in recent years, gaining popularity as an educational and IT hub.





Plastics

are used across almost every sector of the economy, including automobiles, agriculture, aviation, healthcare, industry, pharmaceuticals, and food.



Bhubaneswar had the highest incidence, followed by Delhi (86%) and Mumbai (85%). **89%** Guwahati recorded the lowest at 76%.

The survey results show that an average of 84% of sampled locations (survey points) still had banned SUPs available. Bhubaneswar had the highest incidence at 89%, followed by Delhi (86%), Mumbai (85%), and Guwahati recording the lowest at 76%.

These findings come at a critical time as the fifth session of the Intergovernmental Negotiating Committee (INC-5.2) on Plastic Pollution took place in Geneva, Switzerland, in August 2025. The session sought to establish an internationally legally binding instrument on plastic pollution, including its impact on marine ecosystems (UNEP, 2025). Against this global backdrop, this report highlights the urgent need to strengthen both national enforcement efforts and the international framework for tackling plastic pollution.

This report begins with an introduction to SUPs, their recyclability challenges, and the environmental impact of plastic waste. It then explores the drivers of plastic pollution and outlines the global and national efforts to address this critical issue.





Background

1.1 What are SUPs?

SUPs are plastic products manufactured using fossil fuels and designed for a single use before being discarded (Lindwall, 2025). They are commonly used for packaging, as food containers, and other everyday items (Lindwall, 2025). The major concern with SUPs is that they are non-biodegradable and can persist in the environment for centuries, contributing to pollution in oceans, areas surrounding landfills, and ecosystems

Major concerns associated with using Plastic Products	
Environmental Impact	The non-biodegradable plastics remain in the environment for years and disintegrate into smaller micro and nano plastics (Shulman, 2024), which can enter the food chain and harm organisms at different trophic levels (Marcharla, et al., 2024)
Waste	SUPs, especially the non-recyclable fractions, end up in landfills and stay intact for many years and may pollute the groundwater and neighbouring soils (Marcharla, et al., 2024).
Resource Depletion & Climate change	Plastics are produced using petroleum-based resources which are non-renewable in nature and results in greenhouse gas emissions (Bauer, et al., 2022).
Marine Pollution	Plastics often end up in water bodies, where they can harm marine life through physical entanglement, injury, and even death (Marcharla, et al., 2024).
Burden on Economy	Plastic waste has significant economic and health implications (Yerramsetti, 2025) as it increases the financial burden on countries by increasing the expenditure on waste management and healthcare for the affected populations.
Health	SUPs, like other plastic products, also contain chemicals that pose risks to both human health and the environment. For instance, phthalates—used as plasticisers in plastics and found in many fragrances—are known endocrine-disrupting chemicals (EDCs) that mimic hormones and cause health problems (Hu, 2022). Another widely used EDC is Bisphenol A (BPA), which can exert estrogenic effects and disrupt reproductive function (Moon, 2019). Even alternatives to BPA have been shown to produce similar endocrine-disrupting effects due to their structural similarities (Moon, 2019).

Table 1

The environmental and health concerns associated with SUPs are further complicated by the various types of plastic waste that are generated. While some plastic products are designed with recyclability in mind, the majority of SUPs are either non-recyclable or only partially recyclable, contributing to the growing waste problem. Understanding the different types of plastics and their recyclability is essential to addressing these concerns and developing more effective strategies for plastic waste management.



1.2 Types of Plastics, Their Uses, and Recyclability

Plastic waste can be categorised based on the type of material, intended use, and recyclability. According to the Central Pollution Control Board (CPCB) of India (CPCB, 2013), the major categories are as follows:

› Single-Layer Plastics

These include plastics made from a single polymer material and are generally easier to recycle. These are used to manufacture a wide range of SUPs available in the market today.

Plastic Type	Common Uses	Recyclability
Polyethylene Terephthalate (PET)	Water bottles, soft drink bottles, food containers	Highly recyclable; turned into clothing, carpets, or new bottles
High-Density Polyethylene (HDPE)	Milk and detergent bottles, plastic bags, containers	Easily recycled into piping, plastic lumber
Polyvinyl Chloride (PVC)	Pipes, flooring, windows	Technically recyclable but complex due to additives. Only 3% recycled globally, 82% goes to landfills (Front, 2024). In India, PVC accounts for 45% of recycled plastics (CSE, 2019).
Low-Density Polyethylene (LDPE)	Carry bags, wrapping films	Partially recycled; repurposed into bin liners. Accounts for 25% of recycled plastics in India (CSE, 2019).
Polypropylene (PP)	Medicine bottles, cereal liners	Harder to recycle than PET/HDPE. Accounts for 7.6% of recycled plastics in India (CSE, 2019).
Expanded Polystyrene (PS/ Thermocol)	Disposable cutlery, foam cups, packaging materials	Rarely recycled, highly polluting due to lightweight and non-biodegradable nature (SBMG, 2025). Only 2.4% recycled in India (Moon, 2019). Collection and transportation is costly.

Table 2: Types of plastics, their uses, and recyclability

› Multi-Layered Plastics (MLPs)

As per the Plastic Waste Management Rules (2016), multi-layered plastics are materials with at least one plastic layer plus paper, aluminium, or other polymers (Devi S, 2020). MLPs are currently not included in the SUP ban list, but it is crucial to understand why they should be. They are difficult to recycle and contribute significantly to the increasing quantum of mismanaged waste.

Aspect	Details
Uses	Shampoo sachets, chip packets, tetra packs for milk
Advantages	Cost-effective, lightweight, extends shelf life of food, protects against India's hot and humid climate (Devi S, 2020)
Recyclability	Difficult to recycle, requires thorough cleaning; most MLPs are incinerated in waste-to-energy plants rather than being recycled (Devi S, 2020)

Table 3: Uses, advantages, and recyclability of multi-layered plastics

➤ Biodegradable Plastics and Bio-Plastics

Unlike regular petrochemical plastics, bio-plastics are made from renewable materials like starch blends, whereas biodegradable plastics (sometimes petrochemical-based) degrade via microbial action (Tokiwa et al., 2009; CPCB, 2022). These types of plastics were also not surveyed in this study, but it is important to know about the alternatives to the non-biodegradable SUPs that are available in the market.

Category	Examples	Degradability
Bio-plastics (renewable-based)	Starch blends, Nylon 11 (NY11)	Not always biodegradable—e.g., PE and NY11 remain non-biodegradable despite renewable origin (Tokiwa, et al., 2009)
Biodegradable plastics (fossil-based)	Polycaprolactone (PCL), Polybutylene succinate (PBS)	Produced from petroleum but can be degraded by microbes (Tokiwa et al., 2009)

Table 4: Examples and degradability of Bio-plastics and Biodegradable plastics

While the categorisation of plastics highlights varying degrees of recyclability, a large proportion is still non-biodegradable. These plastics, whether single-layered, multi-layered, or even bio-based, tend to accumulate in the environment when disposal and recycling systems fall short. This makes it important to understand how non-biodegradable plastics contribute to environmental pollution.



Bio-plastics

(renewable-based)

Not always biodegradable—e.g., PE and NY11 remain non-biodegradable despite renewable origin



Biodegradable plastics

(fossil-based)

Produced from petroleum but can be degraded by microbes



1.3 How Non-Biodegradable Plastics Pollute the Environment?

Non-biodegradable plastics cause significant environmental pollution because, as their name suggests, they do not break down naturally and can persist for hundreds or even thousands of years. They have been detected everywhere from the summit of Mount Everest to the depths of the ocean floor (Moore, 2025). Their universal presence has serious consequences for ecosystems, wildlife and human well-being.

> Accumulation in Landfills

Non-biodegradable plastics form a substantial portion of landfill waste. These materials take centuries to decompose, occupying valuable landfill space and gradually breaking down into microplastics. Once formed, these microplastics leach into the surrounding soil and water, where they adsorb toxic compounds and further contaminate the environment (Singh et al., 2023). Common polymers contributing to this pollution include polypropylene, polystyrene, nylon and polycarbonates (Singh et al., 2023).

> Ocean and Marine Pollution

Oceans are among the most severely affected ecosystems, receiving millions of tonnes of plastic waste annually via rivers, waterways, and land-based runoff (Moore, 2025).

- **Plastic Debris:** Larger items such as bottles, bags and fishing gear float on the surface and often entangle marine animals like turtles, whales and seabirds, leading to injury or death. Some species ingest these plastics, mistaking them for food (Moore, 2025).



- **Microplastics:** These exist as primary microplastics (originating directly from products, manufacturing, and transport) or secondary microplastics (resulting from the breakdown of larger plastics) (Rogers, 2025). Both types are ingested by marine organisms, entering the food chain and persisting in water, soil and even the air.
- **Chemical Contaminants:** Plastics also absorb and transport hazardous chemicals such as polychlorinated biphenyls (PCBs), while containing additives like phthalates, BPA, and polybrominated diphenyl ethers (PBDEs)—all of which are recognised endocrine-disrupting chemicals (Moore, 2025).

> Ecosystem Disruption

On land, plastics disrupt ecosystems by contaminating soils, blocking drainage systems, and dispersing as microplastics through wind. These microplastics can travel long distances, degrading air quality and further polluting remote regions (Pilapitiya & Ratnayake, 2024). Inevitably, much of this waste reaches rivers and oceans, compounding marine pollution.

> Contribution to Greenhouse Gas Emissions

Plastics also contribute significantly to climate change. Their production, which relies on petroleum and natural gas, emits large volumes of greenhouse gases. Furthermore, disposal methods—such as incineration and even landfilling of biodegradable plastics—release greenhouse gases that accelerate global warming (Pilapitiya & Ratnayake, 2024).

> Aesthetic and Recreational Impact

Finally, plastic pollution damages the aesthetic and ecological quality of natural environments, diminishing tourism and recreational activities (Pilapitiya & Ratnayake, 2024). Littered coastlines, polluted rivers, and degraded landscapes undermine both biodiversity and human enjoyment of these spaces.

All categories of plastic waste—single-use, multilayer, and recyclable—tend to end up in landfills despite existing pathways like recycling and incineration. This highlights the inefficiency of current disposal mechanisms and the urgent need to strengthen segregation, collection, and processing systems.

Plastic pollution is a growing global concern and has become the focus of both national regulations

and international negotiations. As highlighted in the Executive Summary, despite measures such as India's nationwide ban on 19 single-use plastic products (SUPPs), enforcement remains uneven and products continue to be widely available. This reflects a larger trend seen worldwide, where strong policy commitments often face challenges in implementation.

Plastic pollution is closely linked to the volume of plastic produced by manufacturers (Kardgar, et al., 2025). Over the past several decades, both plastic production and the resulting waste have risen steadily (Kardgar, et al., 2025). To reduce this burden, many countries have sought to limit the circulation of plastic products, particularly those with short life cycles such as SUPPs.

1.4 Global efforts to tackle SUPs: Policies and Actions

Several countries have adopted regulatory and policy measures to phase out SUPs. For instance, Chile banned the distribution of plastic bags in the retail sector in 2018, and within a couple of years, these bags were largely phased out of circulation (Ministry of Environment, Chile, 2021). In June 2021, Chile also issued guidelines for the use of compostable plastics (Ministry of Environment, Chile, 2021).

Similarly, the European Union took a significant step with the Single-Use Plastics Directive (SUPD), which came into effect in 2019. It banned 10 common SUP items most frequently found as litter in aquatic

environments (Kießling, et al., 2023). The directive also included plastic fishing gear and classified bioplastics in the same category as conventional plastics (Kießling, et al., 2023).

At the global level, PR3 is an alliance working to accelerate the development and adoption of standards for reusable systems worldwide (Resolve, 2025). Their draft standards cover Collection Points, Container Design, Digital Systems, Marking and Labelling, System Operations and Performance, and Washing (PR3, 2025). These are being developed through an agreement between Resolve, an NGO, and the CSA Group (PR3, 2025). Reuse systems can help countries to reduce their reliance on SUPs especially in the retail sector.

Despite the various measures implemented globally, progress has not been without its challenges. For example, in Canada, the decision to classify plastic products as toxic substance prompted strong opposition from the plastics industry, which argued that such a move unfairly “demonizes” plastics (Kießling et al., 2023). Similarly, the Chilean government's ban on SUPs in the food and beverage industry faced criticism from the Chilean Plastics Association (Ruiqi, 2022). A recent illustration of these challenges can be seen in the Plastic Treaty Negotiations (INC-5.2) held in Geneva, where, after more than ten days of discussions, countries failed to reach a legally binding agreement (Ballerini, 2025). India too faces its own set of challenges in addressing plastic pollution.

1.5 SUP Ban in India

India faces a unique challenge in addressing plastic pollution. According to Cottom et al. (2024), the country's per capita waste generation has been underestimated, while waste collection rates are often overstated. With official figures showing over 95% waste collection coverage (Cottom et al., 2024), India continues to record some of the highest levels of mismanaged waste globally. It is this mismanaged plastic waste that has serious implications for both human health and the environment.

To curb this issue, India banned SUP items in July 2022. The Ministry of Environment, Forest and Climate Change notification prohibits the manufacture, import, sale and use of 19 identified SUPs which have low utility and high littering potential (MoEFCC, 2022). The banned items are listed in **Table 5**.



S.No.	Banned SUP
1	Ear buds with plastic sticks
2	Plastic stick for balloons
3	Plastic flags
4	Candy with plastic sticks
5	Plastic sticks for Ice cream
6	Polystyrene for decoration
7	Plastic plates
8	Plastic cups
9	Plastic glasses
10	Plastic cutlery (fork)
11	Plastic cutlery (spoon)
12	Plastic cutlery (knife)
13	Plastic wrapping film around sweet boxes
14	Plastic wrapping film around invitation cards
15	Plastic wrapping film around cigarette boxes
16	Plastic bags less than 120 microns
17	PVC banner less than 100 microns
18	Plastic stirrer
19	Plastic straw

Table 5: List of Banned SUPs in India

Government agencies, such as State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs), maintain that enforcement drives are regularly conducted to ensure adherence to the ban (MoHUA, 2025). Despite the enforcement drives by various regulatory agencies these banned products continue to be manufactured and used. For example, in Guwahati, although local manufacturing units have stopped producing such products, SUPs are still commonly found in the market (Goswami, 2025). In Mumbai, similar trends of availability have been observed (Prakash, 2025). Bhubaneswar Municipal Corporation, despite deploying 10 enforcement teams, continues to face difficulties in ensuring compliance (Singha, 2024).

To further strengthen the regulatory framework and ensure compliance, the Single-Use Plastic (Regulation) Bill was introduced in the Lok Sabha in July 2024. The Private Member's Bill (PMB) proposes stricter penalties, including fines ranging from one lakh to five lakh rupees, for violators (Dubey, 2024).

India's efforts to regulate SUPs highlight both the promise and the challenges of national-level action. While policies and enforcement mechanisms exist, implementation remains uneven across cities and regions. This situation underscores the need for stronger monitoring and effective alternatives to reduce dependence on SUPs. Moreover, India's experience reflects the broader global struggle against plastic pollution. The fifth session of the Intergovernmental Negotiating Committee (INC-5.2) on Plastic Pollution, held in Geneva in August 2025, was the latest step towards establishing an internationally legally binding instrument on plastic pollution, including its impacts on the marine environment. In this context, India's progress and challenges emphasise the urgency of coordinated global action alongside national efforts.

Aim, Rationale & Objectives

- **Aim:** The aim of this study is to assess the effectiveness of the SUP ban across four cities of India.
- **Rationale:** Since the ban was effective in July 2022, some progress was observed on the ground in Delhi, Mumbai, Gwalior and Guwahati during our first study, conducted in 2023, on the effectiveness of the ban. That study found compliance in the following order: Bengaluru > Guwahati > Mumbai > Gwalior > Delhi.

The current study builds on that work and investigates whether any significant changes have taken place in the availability of banned SUP products after three years of the ban. This is necessary because, despite the ban, many of the prohibited items can still be found in the markets. A new assessment is required to quantify the ban's effectiveness, evaluate the prevalence of banned items, and understand the challenges of compliance.



- **Objectives:** The following objectives were identified to achieve the goals of this study:

- To quantify the types of banned SUP items still in use across four cities of India.
- To understand the reasons for continued non-compliance, even after three years of the ban.
- To recommend measures for strengthening implementation based on the findings of the study.

Based on these aims and objectives, the study adopted a structured field approach to capture ground realities. The methodology outlined below explains how data was collected and analysed to assess compliance with the SUP ban across the selected cities.



Methodology



To assess the effectiveness of India's SUP ban in practice, a structured field study was conducted across four cities. This methodological framework was designed to systematically capture the extent of compliance, the continued availability of banned SUP items, and the presence of viable alternatives. The study builds upon our 2023 assessment, allowing for a comparative analysis of trends over time while also expanding the scope to include Bhubaneswar as a new city in the sample.

The methodology combines direct observation with structured survey tools to generate robust, city-level insights. Data were collected using the Kobo Toolbox application. By targeting a diverse set of establishments—from small food vendors to large retail outlets—the study provides a representative picture of how the ban is being enforced and experienced on the ground.

This study was designed to evaluate the on-ground effectiveness of India's ban on SUPs. The methodology was structured with three key objectives:

- **Quantify** the continued availability of banned SUP items as per the survey design and sampling strategy discussed later in this section.
- **Understand** the extent to which alternatives are available and explore the reasons for continued non-compliance.

This rationale guided the choice of survey tools, sampling strategy and analytical approach, ensuring that the findings directly inform policy and enforcement discussions.

Study Area

The survey was conducted across four cities representing diverse geographic and socio-economic contexts: **Delhi, Mumbai, Bhubaneswar and Guwahati**. **Delhi and Mumbai** were selected as major metropolitan hubs with high consumer density and varied enforcement capacities.

- **Guwahati** was included to capture perspectives from the Northeast region.

➤ **Bhubaneswar** was added in 2025 as a new site to broaden the scope of analysis and provide additional insights into compliance patterns in rapidly growing tier 2 cities..

Survey Design and Sampling Strategy

The study employed a structured survey design using the Kobo Toolbox application for data collection.

- A total of **560** locations (140 per city) were surveyed across the four cities.
- Survey locations were randomly sampled to include a mix of:
 - **Food stalls (10):** Establishments serving food with mostly standing/take away facilities for their customers.
 - **Street food vendors (10):** Mobile and roadside vendors selling different types of meals such as *pakodas, tikki, chholey bhaturey, vada pav, bara, ghugni*, rolls, etc.
 - **Juice shops/stalls (5):** Establishments selling any type of juice and/or other non-alcoholic beverages.
 - **Coconut water sellers (5):** Mobile or roadside vendors selling fresh coconut water.
 - **Community food servings (5):** Free community feasts (philanthropic and religious) organised by groups or individuals, such as *bhandara, langar, prasad sevan*, etc.
 - **Ice cream parlours (5):** Establishments selling ice creams and other beverages. Mobile carts were not included.
 - **Sweet shops (10):** A mix of both local and established chains of sweet shops.
 - **Railway Platforms (3):** Shops selling eatables on railway platforms.
 - **Bus depots (2):** Shops inside interstate bus depots or bigger bus terminals in the absence of interstate bus terminals.
 - **Metro stations (4):** Shops selling eatables at the metro stations.
 - **Religious spots (10):** Shops/individual vendors selling various products of religious significance both inside and outside multi-faith religious spots.

- **Toy shops (3):** Shops selling toys for children.
- **Wholesale markets/Mandi (5):** Shops in wholesale markets selling products like meat, fish, fruit, vegetables and other products.
- **Vegetable/fruit vendors (5):** A group of 2 or more vegetable or fruit vendors.
- **Weekly markets (3):** Markets organised on certain days of a week. It does not include permanent shops in the area.
- **Cigarette shops (10):** Shops/stalls selling cigarettes of different brands. In Delhi, 10 survey points were observed, while only 1 shop was surveyed in each of the remaining 3 cities, as the same brands are available pan India.
- **Grocery store (5):** A mix of small and large grocery stores selling everyday household items.
- **Malls (5):** An indoor shopping complex with a range of shops and eateries.
- **Party/Decoration shops (10):** Shops that offer products such as disposable cutlery, balloons, and other decorative items commonly used for events like birthdays and parties.
- **Banner shops (5):** Shops where one can buy different types of banners and hoardings.
- **Card shops (5):** Shops where one can buy wedding invitation/gift cards.
- **Tourist spots (5):** Shops or hawkers selling food items inside and outside tourist spots.
- **Small restaurants (5):** A local eatery with limited seating capacity. For ex. Dhaba or Café. It does not include multi-national restaurant chain.
- **Markets (5):** Established shopping areas with multiple shops catering to a wide range of customers. It does not include weekly markets and shopping malls.

This mix ensured that both formal and informal sectors were captured. It was divided into various location categories for effective data collection and analysis. The number of samples at each survey location may vary by city, as it is not always feasible to have the same number of samples across locations. In such cases, our team adjusted the sample size at other locations to ensure that the total sample size for each city remained consistent at 140.

Data Collection Approach

Survey teams visited selected locations between April to August, 2025. At each location, they conducted:

- **Observational Survey:** Presence of banned SUPs (e.g., carry bags, straws, cutlery, cups, plates) and availability of alternatives (e.g., cloth bags, paper products, compostable materials).
- The survey in Delhi was conducted by 'Toxics Link', while our field partner carried out the surveys in all the other cities.
- **Stakeholder interviews:** Vendor perspectives on enforcement, costs, and consumer demand. Five such interviews were conducted for each city and the results were analysed to understand the hindrances in achieving full compliance.

Ethical Considerations

Participation by vendors was voluntary, and no identifying information (e.g., shop names, owner details) have been used in this report to ensure confidentiality. Surveyors clearly explained the purpose of the study and assured respondents that the findings would be used only for research and policy advocacy purposes.

Limitations

- This analysis provides readers with a general overview of the availability of SUPs across the selected cities. Due to time and resource constraints, we aimed to collect as many samples as possible from different parts—North, East, West, South and Central—of each city. However, the rainy season rendered some areas inaccessible, and as a result, our field team had to adjust the sampling approach accordingly.
- **Self-Reporting Bias:** Data collection may have been affected by the strategies used by the field team for data collection.
- **Urban Bias:** As the survey is limited to four cities, it may not fully capture practices related to SUPs in rural or smaller urban areas.
- **Weather conditions:** Some locations were not fully accessible during the data collection period, as heavy monsoon rains disrupted access and activities. In particular, several weekly markets and local events were either cancelled, rescheduled, or significantly affected, which limited the extent of survey coverage in those areas.
- It's also important to note that certain areas within each city may perform better than others, but this variation has not been accounted for in this report.
- Due to the observational nature of the survey, it is challenging to determine whether SUPs were actually not being used. There may be instances where they are not visible to the survey team, yet the vendor could still be providing them to customers upon request.



Results & Discussions

Out of a total of 560 samples in all 4 cities, SUPs were found at 471 sample locations showing a compliance of only around 16%. Bhubaneswar was found to be the least compliant city where SUPs were found at 89.28% of sample locations. It was followed by Delhi, Mumbai and Guwahati in the order of increasing compliance and decreasing number of samples where SUPs were found. Table 6 shows the percentage of samples where SUPs were found in each of the four cities. The percentages have been rounded off for better visualisation.

City	Samples	Samples where SUPs were found	Percentage
Bhubaneswar	140	125	89 (89.28)
Delhi	140	121	86 (86.42)
Mumbai	140	119	85
Guwahati	140	106	76 (75.71)
Total	560	471	84 (84.10)

Table 6: Table showing percentage of samples in each city with SUPs

Note: Results have been rounded off for better visualisation and analysis

Based on the availability of SUPs found in all the sample locations across different cities, Bhubaneswar leads the way with a staggering 89% of locations showing availability of the banned products. It was followed by Delhi where the SUPs were found in 86% sample locations. Mumbai was not too far behind with 85% of sample locations showing availability of SUPs. Guwahati was found to be the most compliant city with SUPs found in 76% of the locations.

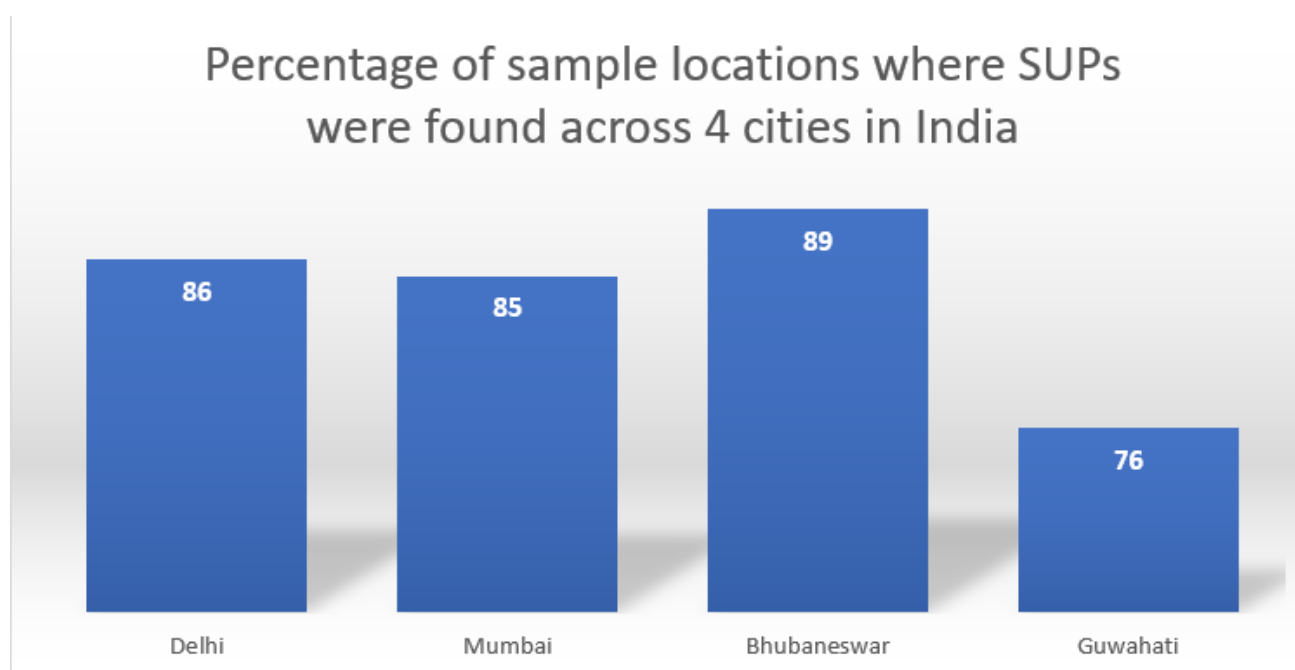


Figure 1: Graph showing percentage of survey locations in each of the 4 cities where the banned SUPs were found

Overall, SUPs were found in around 84% of all the samples collected in 4 different cities. These findings show a significant deviation from the restrictions imposed by the government on the use of SUPs in India. Let us now examine the results for each of the four cities separately for deeper insights into the location categories where compliance is lacking and where they are fully compliant.

Note: Readers are advised that the tables list various types of SUPs and their corresponding alternatives available at each location. This means that the same product may be offered at multiple survey points.

4.1 Availability of SUPs in Delhi

The team observed the availability of SUPs across different parts of Delhi, covering 140 survey points across each of the 24 different location types, as discussed earlier. The SUPs found, alternatives available, and the number of samples collected under each location type have been discussed in the following tables





➤ **Full Compliance (0% SUPs found)**

Location	SUPs Found	Alternatives Observed
Malls (5 samples)	None	All malls were using one or more alternatives to SUPs such as paper plates, paper cups, bagasse plates and cups, wooden cutlery, thick plastic bags, and/or biodegradable cutlery.
Banner Shops (5 samples)	None (only banners above 100 microns were being sold)	All shops were selling banners of thicker material such as Star flex and Eco flex (140–280 microns).

➤ **High Compliance (1-50% SUPs found)**

Location	SUPs Found	Alternatives Observed
Card Shops (5 samples)	Only 20% (1/5) shops had SUPs (carry bags, non-woven bags)	All shops were providing alternatives like paper cards and paper bags.
Bus Depots (2 samples)	Only 50% (1/2) bus depots had SUPs (SUP carry bags).	No alternatives were found at these locations.

➤ **Partial Compliance (51-99% SUPs found)**

Location	SUPs Found	Alternatives Observed
Ice Cream Parlours (5 samples)	60% (3/5) shops used non-woven bags (<60 gsm), SUP cutlery and plastic glasses.	Alternatives were found at all the ice cream parlours and included wooden cutlery, wooden stirrers, paper cups/glasses, paper bags, and/or paper boxes.
Metro Stations (4 samples)	SUPs were found at 75% (3/4) metro stations and included one or more products such as SUP carry bags, forks and cutlery.	Alternatives were found at all the locations and included one or more products such as wooden cutlery, paper plates, paper plates with aluminium lining, paper bags, paper cups, paper straws and steel cutlery.
Community food servings (5 samples)	SUPs were found at 80% (4/5) of events and included one or more products like plastic cutlery, plastic cups and/or plastic plates.	One or more products like paper plates with aluminium lining, wooden cutlery, bagasse products, paper cups, and/or leaf bowls (dona) were available as alternatives at 60% (3/5) of the sample locations.



➤ **Poor/No Compliance (100% SUPs found)**

Location	SUPs Found	Alternatives Observed
Food Stalls (10 samples)	One or more SUPs like SUP carry bags (plastic bags <120 microns), SUP cutlery, plates, cups, and/or straws were found at all the stalls.	Alternatives like paper cups/plates, steel utensils, reusable plastic plates, aluminium foil boxes, wooden cutlery, and/or bagasse plates were found at 90% (9/10) stalls.
Street/Chaat Vendors (10 samples)	All vendors had one or more SUPs like SUP carry bags, SUP cutlery, cups, and/or plates.	90% (9/10) vendors were providing some form of alternatives to SUPs like paper cups, paper plates, aluminium foil boxes, steel utensils, paper plates with lining, and/or wooden cutlery.
Juice Vendors (5 samples)	All vendors were providing one or more SUPs like plastic straws (all), SUP cutlery, plastic cups, and/or plastic bags <120 microns.	Paper glasses (all shops), only 1 (20%) vendor had paper straws.
Coconut Water Sellers (5 samples)	All coconut sellers were providing the banned plastic straws and SUP carry bags.	None
Religious Spots (10 samples)	SUPs were found at all the survey points and included one or more items such as carry bags, plates, cups, cutlery, candy sticks, and/or straws. Most of these were found outside these religious spots.	90% had one or more alternatives: wooden cutlery, paper plates, paper bags, cloth bags, etc. Inside temples: Largely SUP-free; some awareness efforts (posters, announcements).
Toy Shops/Vendors (3 samples)	SUPs were found at all the shops and included products like carry bags and/or non-woven bags.	At 2 (67%) shops: plastic bags 121 microns in thickness were found.
Wholesale Markets/Mandis (5 samples)	SUPs were found at all survey points and included products such as SUP carry bags, straws, and/or glasses.	One or more alternatives were found at all the locations and included products such as plastic bags 121 microns in thickness, jute bags, HDPE gunny bags, and/or cardboard boxes.
Sweet Shops (10 samples)	All sweet shops were providing one or more banned SUPs like wrapping films (all shops), non-woven bags <60 gsm, and/or SUP carry bags.	Alternatives were available at 90% of all sweet shops and included paper bags, paper wrappings, and/or plastic bags -121 microns.
Railway Platforms (3 samples)	SUPs were available at all 3 locations and included one or more products such as SUP carry bags, straws, cutlery and/or cups.	Alternatives were also available at all the locations and included one or more products like paper plates, paper cups, paper straws, wooden cutlery, aluminium foil boxes and/or cardboard boxes.
Vegetable Vendors (5 samples)	SUP carry bags <120 microns (all vendors).	Plastic bags -121 microns were available at only one (20%) location.
Weekly market (3 samples)	One or more SUPs like SUP carry bags, cups, glasses, cutlery, straws, non-woven bags, and/or ear buds with plastics sticks were found at all 3 locations.	Alternatives like plastic bag -121 microns and/or paper bags were found at 67% (2/3) of survey points.

Cigarette Shops (10 samples)	Wrapping films around all cigarette packets (usually made of biodegradable plastic, 730-day degradation claim printed on the film).	None
Grocery Stores (5 samples)	All stores had one or more SUPs available which included SUP carry bags, non-woven bags, candies with plastic sticks, and/or ear buds with plastic sticks.	Alternatives were available at 80% (4/5) locations and included one or more products such as paper bags, paper/wooden sticks (candies, earbuds), and/or plastic bags (121 microns).
Party/Decoration Shops (10 samples)	Banned SUPs were found at all shops and included cutlery, plates, cups, balloons with plastic sticks, and/or thermocol (polystyrene) decorations.	At 70% shops, wooden cutlery, bagasse plates, paper/cloth/metal flags, aluminium foil boxes, paper cups/plates, and/or non-thermocol plastic decorations were seen.
Tourist Spots (5 samples)	One or more SUPs like straws, cutlery, cups, and/or carry bags were found outside the boundary of all the gated tourist spots . Inside paid monuments: SUPs absent, premises largely clean.	One or more products such as paper cups, wooden stirrers, wooden cutlery, paper straws, clay cups, cloth/paper bags, steel cutlery, bagasse plates, and/or 121 microns thick plastic bags were available as alternatives at all locations.
Small Restaurants (5 samples)	All small restaurants were offering one or more banned SUPs like SUP cutlery, SUP plates, SUP carry bags, cups, and/or straws.	Alternatives were available at all the locations and included one or more products like steel utensils, paper straws, paper plates, aluminium foil boxes, plastic bags (121 microns), and/or bagasse products.
Markets (5 samples)	SUPs were available at all 5 locations and included one or more products like ear buds with plastic sticks, balloons with sticks, candies with sticks, plates, cups, cutlery, straws, thermocol decorations, non-woven bags <60 gsm, and/or SUP carry bags (<120 microns).	One or more products like paper straws, paper plates, paper cups, wooden cutlery, aluminium foil boxes, thick/unmarked plastic bags, and/or steel utensils were available at all locations.





SAY NO TO PLASTIC



In Delhi, the survey findings indicate poor overall compliance with the single-use plastic (SUP) ban across most location categories. A majority of sites such as food stalls, street vendors, juice shops, coconut water sellers, sweet shops, railway stations, religious spots, toy shops, wholesale markets, vegetable vendors, weekly markets, cigarette shops, grocery stores, decoration shops, tourist spots, small restaurants, and local markets showed 100% presence of SUPs, reflecting poor compliance. A few locations, including in community food servings (80%), ice cream vendors (60%), and metro stations (75%), demonstrated partial compliance, suggesting some reduction in SUP use. Meanwhile, bus depots (50%) and invitation card shops (20%) showed higher compliance levels, with fewer SUPs seen. Only malls and banner shops recorded full compliance (0%), indicating complete adherence to the ban. It should however be noted that the worst-affected



survey sites were the coconut water sellers, cigarette shops, bus depots, and vegetable vendors, where no suitable alternatives were found at most of the survey points. Overall, the data suggest that while certain organised commercial areas have eliminated SUPs, most informal and street vendors in Delhi continue to rely heavily on them.

Please note that although sites with presence of up to 50% SUPs have been categorised under 'high compliance,' this still reflects a concerning situation, as finding SUPs at around half of the surveyed points cannot be considered satisfactory compliance.

It should also be noted that if SUPs were found in 100% of sample locations, it does not necessarily mean that no alternatives were available at those sites. Please refer to the respective compliance tables for each city to see the number of survey points where alternatives were found, as well as details of the types of alternatives used.

4.2 Availability of SUPs in Mumbai

> Full Compliance (0% SUPs found)

None of the surveyed locations in Mumbai showed complete absence of SUPs — hence, full compliance was not recorded anywhere.

> High Compliance (1-50% SUPs found)

Location	SUPs Found	Alternatives Observed
Railway Platforms (3 samples)	Only 22% (1/3) platforms had SUP carry bags	One or more alternatives were available at all platforms and included steel utensils, paper cups, paper bags, glassware, plastic bags (121 microns), and/or newspaper for takeaway
Malls (5 samples)	40% (2/5) had SUP carry bags, cutlery and/or straws.	All malls were providing one or more alternatives like paper bags, thick plastic bags (121 microns), paper straws, wooden cutlery, reusable cutlery, newspaper, steel cutlery, and/or ceramic items
Tourist Spots (6 samples)	One or more SUPs like cups, cutlery, and/or SUP carry bags were found at 50% (3/6) locations	50% tourist spots were SUP-free. In the remaining 50%, one or more SUPs like paper plates, steel utensils, aluminium foil trays, glassware, paper cups, newspaper, and/or bagasse plates were found
Metro Stations (3 samples)	33% (1/3) had SUP cups and straws	33% (1/3) had alternatives like wooden/steel cutlery, paper/steel plates, paper cups, paper straws, and paper bags.
Wedding/Invitation card shops (5 samples)	40% (2/5) had SUP non-woven bags	Paper bags were available at all the shops





➤ **Partial Compliance (51-99% SUPs found)**

Location	SUPs Found	Alternatives Observed
Food Stalls (12 samples)	92% (11/12) had SUP carry bags; some had SUP cutlery and cups	All stalls had one or more alternatives like steel cutlery, reusable plastic/glass, paper cups, wooden cutlery, bagasse plates, reusable bowls, and/or newspaper
Bus Depots (3 samples)	67% (2/3) had SUP carry bags	Alternatives were available at all 3 locations and included one or more products like paper plates, paper bags, paper cups, and/or newspaper for takeaway
Ice Cream Parlours (5 samples)	80% (4/5) had one or more banned SUPs like SUP cutlery, carry bags, and/or cups	One or more SUP alternatives were available at all locations and included wooden sticks/cutlery, paper cups, paper bags, recyclable plastic carry bags, <i>kulhads</i> (clay cups) 20% (1/5) locations were SUP-free
Toy Shops/Vendors (5 samples)	80% (4/5) shops had SUP carry bags and/or non-woven bags	Reusable HDPE plastic bags were available at 60% (3/5) shops
Grocery Stores (5 samples)	80% (4/5) stores provided SUPs like SUP carry bags and/or candies/earbuds with plastic sticks	One or more alternatives like wooden/paper stick earbuds, candies with wooden sticks, paper bags, newspaper wraps were available at 80% (4/5) stores
Religious Spots (10 samples)	90% (9/10) had SUP carry bags	One or more alternatives like steel utensils, newspaper, and/or reusable plastic plates were available at 40% (4/10) locations

Community food servings (6 samples)	In 83% (5/6) of events, one or more SUPs like SUP cutlery, plates, cups, non-woven bags, and/or SUP carry bags were being used	One or more alternatives like paper cups, paper plates, and/or steel utensils were being used at 83% (5/6) events 17% (1/6) had no SUPs (only alternatives)
Small Restaurants (7 samples)	86% (6/7) had one or more SUPs like SUP cups, cutlery, and/or non-woven bags	One or more alternatives like steel utensils, paper bags, paper plates, wooden cutlery, clay/glass cups, paper straws, newspaper, and/or reusable plastic items were available at all the locations

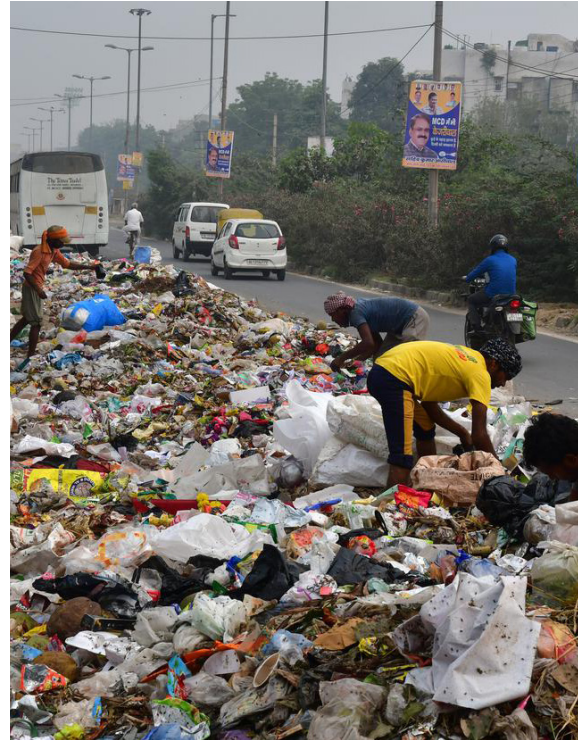
➤ **Poor/Non-Compliance (100% SUPs found)**

Location	SUPs Found	Alternatives Observed
Street Vendors (11 samples)	All vendors had SUP carry bags; 1 also had SUP plates	One or more SUP alternatives like steel utensils, paper plates, newspaper wraps, aluminium-lined paper plates, and/or paper bowls were being provided by the vendors
Juice Shops (5 samples)	All 5 juice shops were using one or more SUP items like straws, glasses, cups, and/or SUP carry bags	One or more alternatives like paper cups, glass cups, paper straws, wooden and steel cutlery, and SUP carry bags were available at all juice shops
Coconut Water Sellers (5 samples)	All sellers had plastic straws and SUP carry bags	None
Sweet Shops (10 samples)	All 10 had one or more SUP items like SUP carry bags, wrapping films, and/or non-woven bags	60% shops had one or more alternatives like paper bags, HDPE bags, biodegradable plastic bags, and/or paper wraps
Wholesale Markets/ Mandis (5 samples)	All 5 had SUP carry bags. Non-woven bags were found in one location.	40% (2/5) locations had either plastic bags (121 microns) or HDPE bags as SUP alternatives
Vegetable Vendors (5 samples)	All 5 used SUP carry bags	80% (4/5) had paper bags or newspapers
Weekly Markets (3 samples)	All 3 had SUP carry bags	33% (1/3) had paper bags
Cigarette Shops (1)	Wrapping films were found around cigarette packets	None
Party/Decoration Shops (10 samples)	All 10 sold one or more SUPs like SUP cutlery, cups, plates, plastic flags, and/or balloons with plastic sticks	90% (9/10) had one or more alternatives like wooden/paper cutlery, bagasse/paper plates, aluminium-lined paper plates, areca nut plates, paper cups, biodegradable products, and/or non-thermocool plastic decorations
Banner Shops (5 samples)	All 5 sold SUP banners (<100 microns)	80% (4/5) were also offering thicker star flex and eco flex banners (>140 microns)

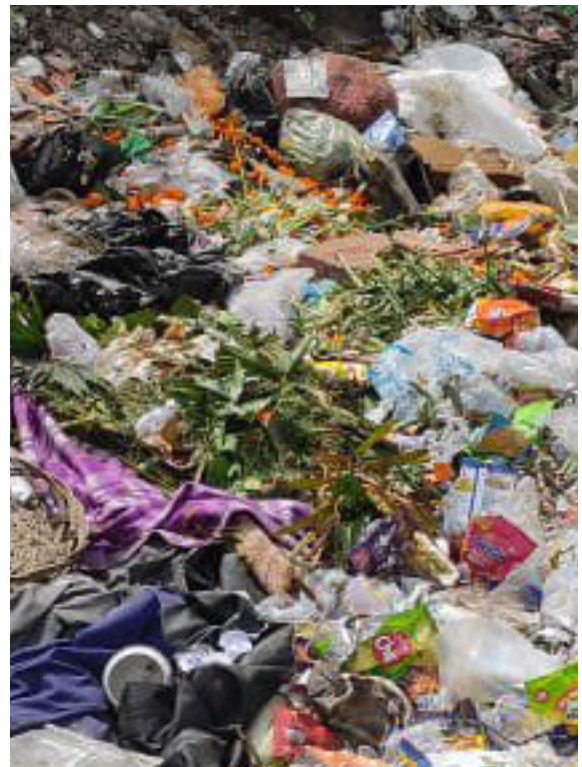
Markets (5 samples)

All 5 had SUP carry bags, non-woven bags, cutlery, candies with plastic sticks, balloons with sticks, plastic flags

One or more alternatives were also available in all 5 markets and included wooden cutlery, paper cups/plates, steel utensils, aluminium foil trays, leaf plates/bowls, cloth bags, HDPE reusable bags, and/or newspaper wraps



Similar to Delhi, the survey results in Mumbai indicate largely poor compliance with the single-use plastic (SUP) ban, as SUPs were found in most (85%) surveyed locations. Categories such as street vendors, juice shops, coconut water sellers, sweet shops, wholesale markets, vegetable vendors, weekly markets, cigarette shops, banner shops, decoration shops, and markets all recorded 100% presence of SUPs, indicating no or poor compliance. Food stalls (92%), community food servings (83%), ice cream vendors (80%), toy shops (80%), religious spots (90%), grocery stores (80%), and small restaurants (86%) showed partial compliance, suggesting limited reduction in SUP usage. A few organised or semi-regulated areas such as railway stations (33%), metro stations (33%), malls (40%), card shops (40%), and tourist spots (50%) demonstrated higher compliance, though SUPs were still observed at several points. It should be noted that coconut water sellers, cigarette shops, and weekly markets were among the worst affected. At most locations, no practical alternatives were found. Overall, the data show that Mumbai, much like Delhi, continues to face significant challenges in ensuring adherence to the SUP ban, particularly in informal and small-scale commercial areas.



4.3 Availability of SUPs Across Guwahati

➤ Full Compliance (No SUPs Found)

Location	SUPs Found	Alternatives Observed
Malls (4 samples)	None	Wooden cutlery, paper straws, paper bags, wooden stirrers, melamine bowls, plastic bags -121 microns
Specialised Banner Shops (4 samples)	None (no banners <100 microns)	Star flex and eco-flex banners >100 microns



➤ High Compliance (1–50% of samples with SUPs)

Location	SUPs Found	Alternatives Observed
Ice Cream Parlours (7 samples)	Only 1 out of 7 (14%) ice cream parlour was found using SUP carry bags and cutlery	All 7 were providing one or more alternatives including wooden cutlery, paper carry bags, paper cups, wooden sticks, paper straws, and plastic carry bags >120 microns
Wholesale Markets (6 samples)	SUP carry bags and non-woven bags were found in 14% (1/7) wholesale markets	Alternatives were found at all 7 locations. These included HDPE bags and/or plastic bags >120 microns.



➤ **Partial Compliance (51-99% of samples with SUPs)**

Location	SUPs Found	Alternatives Observed
Community food servings (7 samples)	SUPs found at 86% (6/7) sites. These included carry bags, cups, cutlery, plates.	Alternatives were found at all except 1 (14%) location. They included one or more products such as paper plates, paper cups, and/or paper bowls.
Sweet Shops (10 samples)	SUPs found at 60% (6/10) sweet shops. These included SUP carry bags (50% samples), and non-woven bags (10% samples).	Alternatives were found at all locations. These included products like plastic bags -120 microns, rubber bands, tape, and/or paper pouches.
Grocery Stores (6 samples)	SUPs were found at 5/6 stores (83% samples). SUP carry bags, plastic candy sticks.	Alternatives were found at all the stores. These included one or more items such as candies with paper sticks, ear buds with wooden/paper sticks and/or HDPE bags.
Small Restaurants/ Cafes (9 samples)	SUPs were found at 7 small restaurants (78% samples). These included SUP carry bags and/or cutlery.	Alternatives were found at all the cafes. These included one or more products like steel utensils, reusable plastic plates, paper cups/ plates, and/or plastic bags -121 microns.
Markets (6 samples)	SUPs were found in 83% (5/6) markets. These included one or more products such as cups, cutlery, straws, carry bags, candy sticks.	Alternatives were found in all the markets. These included paper products (cups, straws, plates, bags), HDPE bags, biodegradable plastics, aluminium foil trays, reusable plastic, glassware, thicker non-woven bags, wooden sticks, toothpicks and newspaper.
Card Shops (5 samples)	60% shops (3/5) were providing SUPs such as non-woven bags	Alternatives were found at all locations and included paper bags and carton boxes
Toy Shops/Vendors (5 samples)	80% (4/5) toy shops were providing SUPs in the form of carry bags	Only 2 toy shops (40% samples) were offering alternatives like paper bags
Religious Spots (9/10)	SUPs were found at 90% (9/10) religious spots. Only SUP carry bags were found.	Alternatives to SUPs were found at 70% (7/10) religious spots. These included paper and steel plates, wooden cutlery, leaf and bagasse plates, paper cups and steel cutlery
Street Vendors (10 samples)	90% (9/10) street vendors were providing SUPs to their customers such as SUP carry bags, cutlery, cups and plates.	Alternatives were found at all 10 locations and included products such as paper plates, bowls, bags, reusable plastic plates, toothpicks and plastic bags >120 microns



➤ **Poor/Non-Compliance (100% Non-Compliance)**

Location	SUPs Found	Alternatives Observed
Food Stalls (10 samples)	SUPs were found at all the food stalls. These included SUP carry bags, cutlery, cups and straws.	Alternatives were found at all the food stalls. These included paper cups, paper plates, steel items, wooden cutlery, reusable plastic plates and newspaper
Juice Shops (5 samples)	SUPs were found at all juice shops and included products like cups, straws, cutlery and carry bags	Alternatives were found at 80% (4/5) juice shops. These included paper cups, paper straws, wooden cutlery, glassware and plastic bags >120 microns.
Coconut Water Sellers (5 samples)	SUP straws were found at all 5 sample locations. SUP carry bags were found at 80% (4/5) locations.	No alternatives found
Railway Platforms (2 samples)	SUPs were found at both the railway stations. SUP carry bags and cutlery were the products found.	Alternatives were also available at both the platforms and included products such as paper plates/cups, paper pouches, steel and reusable plates, steel cutlery
Bus Depots (2 samples)	SUPs were found at both the bus depots and included SUP carry bags, cups and cutlery	Alternatives were found at both locations. These included paper/steel plates, paper cups and steel cutlery.
Vegetable Vendors (5 samples)	SUP carry bags were found at all 5 survey points	Plastic carry bag -121 microns was found at only 20% (1/5) sample locations
Weekly Markets (5 samples)	SUPs were found at all 5 locations and included products like SUP carry bags and non-woven bags	Alternatives were found at only 20% sample locations (1/5)
Cigarette Shops (1 sample)	Wrapping films were found around all cigarette packets	Not available

Party/Decoration Shops (10 samples)	SUPs were found at all 10 locations. These included plastic flags, balloons with plastic sticks, thermocol items, cups, plates, cutlery, carry bags and non-woven bags.	Alternatives were found at 90% (9/10) shops. These included wooden cutlery, leaf plates, bagasse plates, paper cups/plates and biodegradable plastic items.
Tourist Spots (5 samples)	SUPs were found at all 5 tourist spots and included products such as SUP carry bags, cutlery, straws and cups	Paper cups/plates/straws, wooden cutlery/ stirrers, newspaper, aluminium foil trays and steel utensils



In Guwahati, the survey results reveal slightly better compliance with the SUP ban compared to Delhi and Mumbai. Sites such as food stalls, juice shops, coconut water sellers, railway stations, bus stops, vegetable vendors, weekly markets, cigarette shops, decorative item shops, and tourist spots all recorded 100% presence of SUPs, reflecting 'no or poor compliance'. Street vendors (90% SUPs), community food servings (86%), religious spots (90%), toy shops (80%), grocery stores (83%), markets (83%), small restaurants (78%), card shops (60%) and sweet shops (60%) showed partial compliance, indicating limited progress in reducing SUP usage. On the other hand, ice cream vendors (14%) and wholesale markets (14%) demonstrated high compliance, while malls and banner shops achieved full compliance (0%), suggesting complete adherence to the ban in these organised sectors. It should

however be noted that the worst-affected sites were the coconut water sellers, cigarette shops, weekly markets and vegetable vendors, as no feasible alternatives were available at most survey points. Overall, despite a few positive examples from organised sectors, Guwahati continues to face significant challenges in curbing SUP use, particularly among informal and small-scale vendors.

4.4 Availability of SUPs Across Bhubaneswar

> Full Compliance (No SUPs Found)

- None of the sample locations in Bhubaneswar achieved full compliance with zero SUPs.

> High Compliance (1–50% of samples with SUPs)

Location	SUPs Found	Alternatives Observed
Malls (5 samples)	40% (2/5) malls were using the banned SUPs. Non-woven bag was the only banned product found in these locations	Alternatives were being used in all the malls and included products like wooden cutlery, paper straws, paper cups, paper bags, steel utensils, and reusable plastic cutlery
Banner Shops (8 samples)	25% (2/8) banner shops were selling banners <100 microns	All the banner shops were selling thicker banners of different types (>100 microns, star flex, eco-flex)





➤ **Partial Compliance (51–99% of samples with SUPs)**

Location	SUPs Found	Alternatives Observed
Community food servings (5 samples)	SUPs like cups, cutlery and carry bags were found at 80% (4/5) sites	Alternatives were found in all 5 locations. These included paper plates, wooden cutlery and leaf plates
Religious Spots (10 samples)	SUPs were found at 90% (9/10) religious spots. The banned products found included SUP carry bags, non-woven bags, cups and cutlery	Alternatives included steel plates, leaf plates, HDPE carry bags, and paper plates (at 60% of locations)
Card Shops (6 samples)	Banned SUPs were found at 67% (4/6) shops in the form of non-woven bags	Paper bags, as alternatives, were found at all the shops
Tourist Spots (5 samples)	SUPs were found at 80% (4/5) tourist spots and included products like straws, cutlery, cups, carry bags and non-woven bags	Alternatives were also available at all tourist spots and included various products such as paper cups/plates, leaf bowls/plates, wooden cutlery and steel cutlery
Small Restaurants (9 samples)	SUPs were found at 89% (8/9) small restaurants and included SUP carry bags, cutlery, non-woven bags	Alternatives were also available at all the sample locations and included products such as steel utensils, paper plates, biodegradable items, reusable plastic plates and paper bags



➤ **Poor/No Compliance (100% Non-Compliance)**

Location	SUPs Found	Alternatives Observed
Food Stalls (10 samples)	All food stalls were providing banned SUPs such as carry bags and cutlery to their customers	Alternatives were also available at all the food stalls. These included paper plates, paper cups, wooden cutlery, steel utensils and leaf bowls
Street Vendors (10 samples)	All street vendors were providing banned SUPs to their customers. These included SUP carry bags and cutlery	All street vendors were providing alternatives to SUPs which included paper plates, leaf bowls, wooden cutlery and steel utensils
Juice Shops (5 samples)	All juice shops were offering SUPs to their customers. These included SUP carry bags, straws, non-woven bags and cups	Paper straws, reusable mugs/bags, steel cutlery
Coconut Water Sellers (5 samples)	All coconut water sellers were offering the banned SUP straws to their customers	None
Ice Cream Parlours (5 samples)	All ice cream parlours were offering one or more of the SUP items like non-woven bags, cutlery, carry bags and/or cups	All ice cream parlours were offering one or more alternatives such as wooden sticks, steel cups, wooden cutlery, paper cups, paper straws and/or paper bowls

Sweet Shops (10)	All sweet shops were using some form of SUPs such as non-woven bags, carry bags and/or wrapping films	One or more alternatives were also being provided at all the shops such as paper bags, tapes and/or rubber bands
Railway Platforms (3 samples)	SUP carry bags were available in all the platforms	Alternatives were being used in all the platforms and included products like paper cups, clay cups, and/or newspaper wraps
Bus Depots (2 samples)	SUPs were found in both the locations and included products like cups, cutlery, straws and/or carry bags	Alternatives were also available in all locations and included products like paper cups/bowls, clay cups, glassware, wooden cutlery and/or newspaper
Toy Shops (5 samples)	SUPs were found in all the shops and included products like non-woven bags, and/or carry bags	Alternatives were found at 60% (3/5) shops and included products like newspaper bags or HDPE bags
Wholesale Markets (5 samples)	SUP carry bags were available in all the locations	40% samples had either HDPE bags (1 location) or plastic bags >120 microns (1 location)
Vegetable Vendors (5 samples)	SUP carry bags were available with all the vegetable vendors	None
Weekly Markets (5 samples)	SUPs were found in all the locations and included one or more products such as SUP carry bags, balloons with plastic sticks, and/or non-woven bags	Alternatives (in 40% markets) were available in the form of paper bags and non-woven bags > 60 gsm
Cigarette Shops (1 sample)	Wrapping films on cigarette packets	None
Grocery Stores (5 samples)	SUPs were found in all the stores and included one or more items such as earbuds with plastic sticks, candies with plastic sticks and/or carry bags	Alternatives were available in all the stores and included plastic bags >120 microns and/or earbuds with wooden/paper sticks
Party/Decoration Shops (10 samples)	SUPs were found in all locations. Banned products found included one or more items such as balloons with plastic sticks, plates, cups, cutlery, plastic flags and/or thermocol decoration.	Alternatives were available in all locations and included one or more products such as wooden cutlery, paper/leaf/bagasse plates, biodegradable plastics and/or balloons without sticks
Markets (5 samples)	Banned SUPs were available in all the markets and included one or more products like SUP carry bags, non-woven bags, cutlery, cups, glasses, plates, earbuds with plastic sticks and/or plastic flags	Alternatives were also found in all the markets and included one or more products like paper bags, paper/leaf/bagasse plates, aluminium foil trays, biodegradable plastics, reusable utensils (steel/plastic) and/or plastic bags >120 microns

Bhubaneswar showed the poorest compliance among all four cities, with SUPs found in over 89% of the sample location. A large number of sites, including food stalls, street vendors, juice shops, coconut water sellers, ice cream vendors, sweet shops, railway terminals, bus depots, toy shops, vegetable vendors, weekly markets, cigarette shops, grocery stores, decoration shops, and markets, recorded 100% presence of SUPs, showing no compliance. Community food servings (80%), religious spots (90%), tourist areas (80%), small restaurants (89%) and card shops (67%) exhibited partial compliance, suggesting limited progress in reducing SUP use. A few organised sectors such as malls (40%) and banner shops (25%) showed high compliance, indicating some level of enforcement. It should however be noted that the worst-affected sites were the coconut water sellers, cigarette shops, and vegetable vendors, where no suitable alternatives were found at any survey point. Overall, Bhubaneswar's data reflects that SUPs remain widely used, particularly among informal vendors and small establishments, despite some improvements in organised commercial areas.

Now that the detailed scenarios from all four cities have been discussed, the following table brings together the key findings to give a consolidated view of compliance.

Compliance Level	Delhi	Mumbai	Guwahati	Bhubaneswar
Full Compliance (0% SUPs)	Malls, Banner shops	None	Malls, Banner shops	None
High Compliance (1-50% SUPs)	Bus Depots, card shops	Railway platforms, Malls, Tourist spots, Metro Stations, Card shops	Ice cream Parlours, Wholesale Markets	Shopping malls, Banner shops
Partial Compliance (51-99% SUPs)	Community food servings, Ice Cream Parlours, Metro stations	Food stalls, Bus depots, Ice cream parlours, Toy shops, Grocery stores, Religious spots, community food servings, Small restaurants	Street vendors, Community food servings, Sweet shops, Religious spots, Toy shops, Grocery stores, Tourist spots, Card shops, Small restaurants, Markets	Religious spots, Community food servings, Card shops, Tourist spots, Small restaurants
Poor/No Compliance (100% SUPs)	Food stalls, Street vendors, Juice shops, Coconut water sellers, Sweet shops, Railway platforms, Religious spots, Toy shops, Wholesale markets, Vegetable vendors, Weekly markets, Cigarette shops, Grocery stores, Party shops, Tourist spots, Small restaurants, Markets	Street vendors, Juice shops, Coconut water sellers, Sweet shops, Wholesale markets, Vegetable vendors, Weekly markets, Cigarette shops, Party shops, Banner shops, Markets	Food stalls, Juice shops, Coconut water sellers, Railway platforms, Bus depots, Vegetable vendors, Weekly markets, Cigarette shops, Party shops, Tourist spots	Food stalls, Street vendors, Juice shops, Coconut water sellers, Ice cream parlours, Sweet shops, Railway platforms, Bus depots, Toy shops, Wholesale markets, Vegetable vendors, Weekly markets, Cigarette shops, Grocery stores, Party shops, Markets

Table 7 : Compliance chart showing compliance observed during our survey at various locations across the selected cities of India

Table 7 summarises the findings from all four cities, highlighting where compliance with the SUP ban was strongest, weakest, and varied in between. Bhubaneswar had the fewest locations which came under ‘Full Compliance’ and ‘High Compliance’ category, making it the least compliant city. For a detailed table on deviation from compliance, please see **Annexure 1**.

4.5 Interactions with vendors and additional findings

Interactions with 20 vendors revealed key insights into awareness of the SUP ban, access to alternatives, and the challenges in meeting the ban’s objectives. Notably, awareness posters were scarce, with most found only in select areas, leaving many people unaware of the ban.

While 91% of vendors reported that customers still request SUPs, 55% noted that some customers bring their own bags. This shows that customers ask for carry bags despite having their own bags. It is important to highlight that customers do not necessarily ask for a single-use plastic (SUP) carry bag specifically — they simply expect a free bag, which in most cases happens to be an SUP carry bag (it being cheaper than the alternatives). Additionally, 91% of vendors cited the cost of alternatives as a significant barrier to adopting SUP substitutes.

Single-use plastics (SUPs) offer convenience, as they eliminate the need for washing utensils, allowing people to simply dispose of cutlery, plates and other materials used at parties and events. Due to their low cost, SUPs are widely used by street vendors as well.

Additionally, some individuals prefer SUPs, believing they are more hygienic than relying on vendors to clean reusable plates and cutlery. However, whether this trend is also prevalent in rural areas, where perceptions of hygiene may differ from those in urban centres, remains an open question. It is also crucial to assess how cities rank in cleanliness, based on government surveys.

To further contextualise our findings, it is important to consider the broader trends in cleanliness across India. The Ministry of Housing and Urban Affairs of India conducts an annual cleanliness survey for both rural and urban areas. For the urban survey, the cities were categorised into different groups based on population size and then ranked within each group. As per the ‘Swachh Survekshan-Urban’ 2024-25 results, Delhi ranked 31st (Swachh Survekshan, 2025) among cities with populations over one million, while Mumbai ranked 33rd in the same category. Additionally, Guwahati ranked 44th, and Bhubaneswar ranked 9th among cities with populations between 300k and 1 million (Swachh Survekshan, 2025). Please note that the categorisation of the cities in the Swachh Survekshan is based on the population estimates as per the 2011 Census of India.

These rankings reflect the ongoing challenges in waste management and cleanliness, which are closely tied to the implementation of policies such as the SUP ban. In this context, our findings on compliance across cities become even more significant. **When comparing the average compliance levels under different location categories across all four cities**, some clear trends emerge. **Annexure 2** illustrates that compliance largely fell into three categories:



Poor Compliance, *Partial Compliance*, and *High Compliance*. Among 24 categories analysed, 25% (6 categories) showed *Poor Compliance*, meaning SUPs were present in all sampled locations. A majority—58.33% (14 categories) fell under *Partial Compliance*. Only 12.5 (3 categories) of categories were classified as *High Compliance*. **In the average of all four cities**, not a single category showed *Full Compliance*. Metro stations were excluded from all compliance categories, as two of the cities we surveyed do not have a metro rail system. The absence of full compliance, even in major metropolitan centres where enforcement is expected to be stronger, underscores the scale of the challenge. Further research is needed to assess compliance in rural areas, where per capita plastic consumption patterns may differ from urban centres.

4.6 Enforcement

Similar to our previous assessment, high compliance was observed primarily in locations where the use of SUPs can be more effectively regulated, such as restaurants, retail stores, and outlets in shopping malls. Most cigarette companies continue to use biodegradable plastic packaging. However, it is important to note that the wrapping films around cigarette packets—though marketed as biodegradable within 730 days in a landfill—still contribute to littering before they reach a landfill. Due to this reason, we have included these products under the SUP category. It is the responsibility of the concerned authorities to ensure the biodegradability of the packaging.

Major brands have shifted to providing ear buds with paper or wooden sticks. In contrast, some local brands, particularly those sold in grocery stores and weekly markets are still manufacturing and selling ear buds with plastic sticks.



91% of vendors reported that customers still request SUPs, 55% noted that some customers bring their own bags.

We have also included non-woven bags under SUPs unless the GSM value was clearly specified on the bag, which in most cases was not mentioned.

While government agencies reportedly conduct planned raids in certain areas, compliance in most surveyed locations remains very low or, in some cases, entirely absent. Coconut water sellers and vegetable vendors continue to rely exclusively on SUPs, with no visible alternatives. Street food vendors also fall into this category, although a few stalls have begun adopting substitutes. Monitoring these local vendors is particularly critical given the large number of people they cater to on a daily basis.

4.7 Barriers

The cost of alternatives remains one of the biggest barriers to compliance. Vendors and shopkeepers often find plastic options considerably cheaper. For example, while a single plastic bag with thickness greater than 120 microns costs the same as three SUP carry bags, similar cost disparities were observed for other SUP alternatives. Without addressing this economic imbalance, it will be difficult to achieve meaningful reduction in the use of SUPs without imposing financial strain on small businesses and consumers. For instance, experts in Mumbai have emphasised the need for better and more affordable alternatives, along with investment in innovative solutions for manufacturing substitutes to SUPs (Prakash, 2025).

In summary, the findings from this study show that compliance with the SUP ban remains inconsistent in India's major cities. In the next section, we will discuss how addressing gaps in enforcement, ensuring the availability of affordable alternatives, and investing in awareness campaigns will be essential to make the ban effective and sustainable.



Guwahati ranked **44th** and Bhubaneswar 9th among cities with populations between 300k and 1 million Swachh Survekshan 2024-25



Recommendations

The significant increase in the use of SUPs in Mumbai, along with only marginal changes in Delhi and Guwahati between 2023 and 2025, underscores the urgent need for more effective implementation of the SUP ban across the country. To address these trends, a comprehensive, multi-pronged approach involving the government, vendors and consumers is essential. Collaboration among all stakeholders is crucial to ensuring the success of this ban and mitigating the environmental harm caused by SUPs.

5.1 Government Actions

The government plays a pivotal role in enforcing and promoting the ban on SUPs. To improve compliance, the government should focus on the following measures:

- **Awareness Campaigns:** Launch widespread educational campaigns targeting major city centres, utilising various platforms such as social media, radio, television, and community outreach programmes. These campaigns should focus on the environmental impact of single use plastic products (SUPPs) and emphasise on the benefits of the ban.
- **Regular Monitoring and Enforcement:** Increased monitoring of locations with low compliance rates, as indicated in our report, will allow the authorities to identify hotspots where enforcement efforts should be concentrated. Regular inspections and surprise raids can help ensure better adherence to the ban.
- **Penalties for Non-Compliance:** Vendors who sell or distribute banned SUPPs should face fines or penalties, and the banned products should be confiscated. Those who are repeat offenders should be banned from producing or selling these products. Strict action is necessary to curb the availability of SUPPs in the market.
- **Support for Alternatives:** The government should provide incentives and support to businesses that produce eco-friendly alternatives to SUPPs. This will help lower the cost of sustainable products, making them more accessible to vendors and consumers alike.
- **Shift to Sustainable Alternatives:** Vendors should be encouraged to stock and promote alternatives to SUPPs, such as biodegradable bags, paper packaging, or reusable containers. Providing such

alternatives at competitive prices will help facilitate the shift away from plastic.

5.2 Vendors' Role

Vendors and suppliers are directly involved in the distribution and sale of SUPs, and their actions are key to the success of the ban. They should take the following steps to ensure compliance:

- **Promoting Refill and Reuse:** Vendors can play an active role in reducing plastic waste by encouraging customers to use reusable bags or containers. Offering incentives, such as discounts to customers who bring their own bags, can motivate consumers to reduce their reliance on SUPs.

5.3 Consumers' Role

Consumers also have a vital role to play in the success of the ban, especially in cities where compliance is still low. Encouraging responsible consumer behaviour will help reduce the demand for SUPs. Consumers can take the following steps:

- **Carry Their Own Bags:** In areas where compliance is low, consumers can take personal responsibility by bringing their own bags to shops. This simple yet effective action can significantly reduce the demand for SUP bags in everyday transactions.
- **Adopting Sustainable Habits:** Consumers should also be encouraged to adopt broader sustainable practices, such as using reusable containers, refusing plastic straws, and opting for products with minimal or no plastic packaging.
- **Educating and Advocating:** Consumers can help spread awareness among their peers about the harmful effects of SUPs. Word-of-mouth advocacy and participation in local initiatives will create a ripple effect that reinforces the importance of the ban.

Conclusion

This study highlights priority areas for policymakers and other stakeholders to target in order to strengthen enforcement of the SUP ban. Progress remains uneven, and much work is still required from all stakeholders. Addressing the gaps in monitoring, awareness, and enforcement are crucial to achieving sustained compliance and reducing plastic pollution.

The findings of this study can help the regulators to prioritise monitoring based on compliance levels, as outlined in this report. Locations such as juice shops, coconut water vendors, vegetable stalls, weekly markets, cigarette retailers, and party/decoration shops should undergo regular inspections to ensure adherence to the ban as they fall under the 'No Compliance' range where SUPs were found at all the sample locations. Areas with 'Very Poor' compliance such as food stalls, street food vendors, markets, religious spots, grocery stores, toy stores, small restaurants, wholesale markets, tourist spots, sweet shops, railway platforms, community food serving events, bus stops, ice cream parlours, metro stations and card shops could be targeted less frequently compared to locations with 'No Compliance' and require more immediate attention.

Though locations with 'High' or 'Full compliance' such as shopping malls and banner shops could be monitored on a reduced scale, vigilance will be key to prevent any decline in compliance levels, ensuring that areas showing high compliance continue to meet standards.

Finally, addressing the menace of SUPs requires a collective and sustained effort. It is crucial that the alternatives we adopt are not only effective but also sustainable, ensuring that they do not create new environmental or supply challenges in the long term. We must reflect on whether single-use products—plastic or otherwise—are truly necessary, or if there are more viable solutions that prioritise the promotion of reusable alternatives. Ultimately, our goal should be to safeguard the environment, while ensuring the health and well-being of the general public.

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Annexure 1

Location	Delhi	Mumbai	Bhubaneswar	Guwahati
Food stalls	100	92	100	100
Street vendors	100	100	100	90
Juice shops	100	100	100	100
Coconut water sellers	100	100	100	100
Community food servings	80	83	80	86
Ice cream Parlours	60	80	100	14
Sweet shops	100	100	100	60
Railway Platforms	100	33	100	100
Bus Depots	50	67	100	100
Metro Stations	75	33	NA	NA
Religious spots	100	90	90	90
Toy shops	100	80	100	80
Wholesale markets	100	100	100	14
Vegetable vendors	100	100	100	100
Weekly markets	100	100	100	100
Cigarette shops	100	100	100	100
Grocery stores	100	80	100	83
Malls	0	40	40	0
Party/decoration shops	100	100	100	100
Banner shops	0	100	25	0
Card shops	20	40	67	60
Tourist spots	100	50	80	100
Small Restaurants	100	86	89	78
Markets	100	100	100	83

Colour Code	Corresponding Compliance Level
Red	Poor/No Compliance (100% SUP)
Orange	Partial Compliance (51-99% SUPs)
Yellow	High Compliance (1-50% SUPs)
Green	Full Compliance (No SUPs)

Annexure 2

Location	Percentage of Average SUP samples (Average of all 4 cities)	Compliance Level	
Juice shops	100	Poor/No Compliance	
Coconut Sellers	100		
Vegetable vendors	100		
Weekly markets	100		
Cigarette shops	100		
Party/decoration shops	100		
Food stalls	98	Partial Compliance	
Street/Chaat vendors	97		
Markets	96		
Religious spots	92		
Grocery stores	91		
Sweet Shops	90		
Toy shops	89		
Small Restaurants	88		
Community food servings	82		
Railway Platforms	82		
Tourist Spot	82		
Wholesale markets	79		
Bus Depots	79		
Ice cream shops	64		
Card shops	47		High Compliance
Banner Shops	31		
Malls	20		
Metro Stations	Not Applicable (2 cities don't have a metro)	Not Applicable	

Table: Compliance chart showing average compliance levels across four different cities in India under different location categories

Note: Percentages have been rounded off as earlier

Annexure 3

Survey Questions

1. Were there any posters (carry your own bag or plastic free shop/area) in any of the survey points (provide pictures)?
 - Yes, almost all
 - Yes some, but still providing SUPs
 - Yes some, and providing alternatives to SUPs
 - No
2. Were there any cloth bag ATMs or distribution observed in any of the survey points (provide pictures)?
 - Yes
 - No
 - Present, but not working
3. Do customers ask for SUPs? (Interact with few vendors across different survey points)
 - Most
 - Some
 - None
4. Do customers carry their own alternatives (bags, spoons, straw etc.) (Interact with few vendors across different survey points)
 - Most
 - Some
 - None
5. Do customers complain if you don't provide them with certain SUPs? (Interact with a few vendors across different survey points)
 - Most
 - Some
 - None
6. What are the barriers in making the switch to alternatives? (Interact with a few vendors across different survey points)
 - Cost of the alternative
 - Market availability
 - Knowledge* (*Where to purchase it from, brands, quality of the alternative)
 - Others specify
7. How do you procure SUPs items? (Interact with a few vendors across different survey points)



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