







## Designing sustainable packaging in e-commerce: A WWF India case study on the Flipkart Group



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### **Foreword**

India generates 9.46 million tonnes of plastic waste annually, of which 40% remains uncollected; 43% is used for packaging, most of it is single-use. Packaging uses 40% of all plastic produced¹—but the average "working life" of a plastic bag is only 15 minutes—resulting in massive resource and energy loss. This exposes companies with large quantities of plastic in their supply chains to material and reputational risk, but also presents them the opportunity to innovate and close the loop on plastic production, by introducing more sustainable options into customer chains.

Building a responsible value chain is an extensive, complex, and challenging task, and must take centre stage in decision-making.

Flipkart's ambition is to use the strength of its platform to do good for people and the planet. With that in mind, we knew we wanted an approach to creating long-term value for our communities by incorporating environmental, social and governance aspects of doing business. When we looked across our value chain, the consumption of single-use plastic in our packaging was one such aspect that we understood had to be gradually reduced and eventually eliminated.

Plastic does not belong in nature. As part of its global strategy, WWF India envisions a future with 'No Plastic in Nature' and aims to curtail the flow of plastic into our ecosystems by 2030. We believe in creating relationships and building collaborative partnerships to amplify the collective voice of multiple stakeholders for driving a compelling narrative on sustainable business practices and bring out a transformational change in the supply chains, guide policies, create awareness and catalyse practical, sustainable solutions.

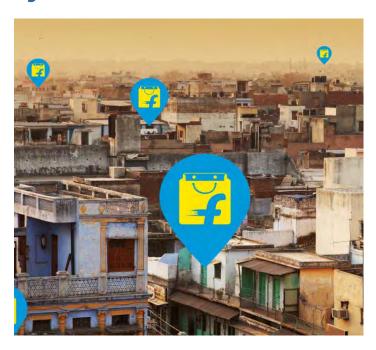
Flipkart collaborated with WWF India under the Un-Plastic Collective (UPC) - a voluntary, multi-stakeholder initiative, to drive corporate action toward solutions on plastic leakage. The aim was to unlock barriers to circularity and create new business models to transform the plastic packaging sector by amplifying the collective voice of multiple stakeholders across the value chain.



https://www.wwfindia.org/?20402/India-to-be-the-First-Asian-Country-to-Launch-a-Plastics-Pact https://timesofindia.indiatimes.com/india/india-geneates-9-46-million-tonnes-of-plastic-waste-annually-study/articleshow/70899567.cms

### **About the Company**

The Flipkart Group is among India's leading digital commerce entities and includes group companies Flipkart, Myntra, and Flipkart Wholesale. Started in 2007, Flipkart has enabled millions of consumers, sellers. merchants, and small businesses to be a part of India's digital commerce revolution, with a registered customer base of more than 400 million, offering over 150 million products across 80+ categories. Flipkart has set a benchmark for the industry by democratizing e-commerce in India, driving access and affordability, delighting customers, creating lakhs of jobs in the ecosystem and empowering generations of entrepreneurs and MSMEs and will continue to lead the path by scaling its efforts.



### **Motivation**

Flipkart strongly believes in integrating sustainability into every aspect of its business operations and value chain, and has adopted a proactive and holistic approach towards conducting its business responsibly with optimum usage of natural resources. It is at the core of Flipkart's business model, and they are consistently identifying new opportunities towards building a responsible value chain.

With its vision set to a sustainable future, Flipkart is concentrating on incorporating sustainable packaging practices in its processes while also promoting and creating a shared ecosystem with its community, including sellers, suppliers, and consumers to bring long-term value to their business.

The teams at Flipkart continue to find opportunities across the country to incorporate sustainability in its packaging through the reduction and reuse of packaging material, replacing single-use plastics across their outer packaging needs, and recycling plastic waste generated in the supply chain to ensure zero waste to landfill across all Flipkart Operations. The teams also continue to evaluate options from innovators and corporations alike, for their scalability, availability, and affordability.



### **Defining Sustainable Packaging**

Since the inception of plastic, humans have continued to innovate to conceptualize different varieties that have become integral to modern life in other forms. From being used in packaging to electronics to fashion, this omnipresent material has found its way into waste, food and water streams. The material that was hailed to be the savior of natural habitat and material of a thousand uses has now become the biggest problem in human history due to mismanagement or lack of proper disposal methods. A systemic change is required in the way plastics are designed, used and managed at end of life and used to create a circular economy where plastics do not end up in our waste and waterways which in turn harms life on land and in water.

Flipkart believes that we must create an ecosystem to design out waste in plastic usage. Part of this is to introduce sustainable packaging materials, co-design packaging with brand partners and sellers and promote circularity across packaging practices.

The meaning and understanding of sustainable packaging have evolved through the years. The current infrastructure, innovations, and policy ecosystem play a critical role in identifying what material can be considered sustainable, and material science is constantly evolving.

The three core guiding principles are as follows:



### 01. Reuse

Can this material or packaging be reused again in another form?

#### 02. Reduce

Can we reduce the amount of virgin material we are using to create this packaging?

### 03. Recycle

Can this packaging be further recycled and reused?

### 04. Repurpose

Can existing packaging materials be reused and re-purposed for new use cases?

### 05. Regenerate

Can packaging be designed using innovative solutions that contribute to circularity and regeneration?

Ellen Macarthur Foundation also highlights these core principles. 1

https://www.ellenmacarthurfoundation.org/our-work/activities/new-plastics-economy/publications/reports

Flipkart believes that creating the right ecosystem for sustainable use of packaging is as important as identifying the most sustainable material for packaging-related consumption. Flipkart's approach towards Sustainable Packaging relies on four pillars:

### **Engagement**

- Work with policymakers to define sustainable packaging for the industry
- Consult with stakeholders and deliberate on Plastic Waste Management Rules
- Work with state legislators to enhance the public infrastructure for recycling

### **Innovation**

- Work with startups to identify different solutions to substitute single-use plastics in the e-commerce supply chain
- Work with global industry leaders to find scalable solutions to replace single-use plastic

### **Capacity Building**

• Educate community of sellers, consumers, and employees on the environmental impact of plastics

### **Compliance**

- Work with designated recyclers to ensure compliance with EPR regulation across the country
- Ensure we go beyond all state-level policies for specific materials

# Journey of Sustainable Packaging at Flipkart

### March 2019

The packaging team **kicks off the design and development process** to
scout for options to reduce and reuse
packaging, replace single-use plastic,
and recycle plastic waste generated in
the supply chain to ensure **zero waste to landfill** across all Flipkart operations

### December 2019

Shredded paper, 2-ply wraps, and other alternative materials replaced plastic in all our packaging filler materials

### February 2020

Replaced plastic security bags with recyclable paper bags customised for e-commerce deliveries

### May 2020

Single-use plastic eliminated by 50% in all shipments fulfilled by Flipkart. Replaced all single-use plastic for the state of Maharashtra

### June 2020

National EPR authorisation received by Flipkart as a Producer/Brand Owner. Flipkart, compliant with recycling norms across India, starts working with recyclers to divert all plastic waste generated away from landfills

### August 2020

Flipkart **introduces No-Package Shipping.** Starts working with sellers and suppliers to eliminate the need for outer packaging

### December 2020

**Single-use plastic eliminated by 56%**. The sustainable packaging program expanded across Karnataka, Tamil Nadu, Telangana and Andhra Pradesh

### January 2021

**61% reduction achieved with sustainable packaging** introduced in Haryana

### May 2021

15% of products shipped without secondary packaging under the 'No Package Shipping' program. 96% of customer shipments from fulfilment centres (FCs) shipped in Sustainable Packaging.

### June 2021

Stopped all fresh procurement of single-use plastic materials for FCs.

### July 2021

Flipkart achieved the milestone of 100% elimination of single-use plastic in its own supply chain covering more than 70 facilities across India.

### September 2021

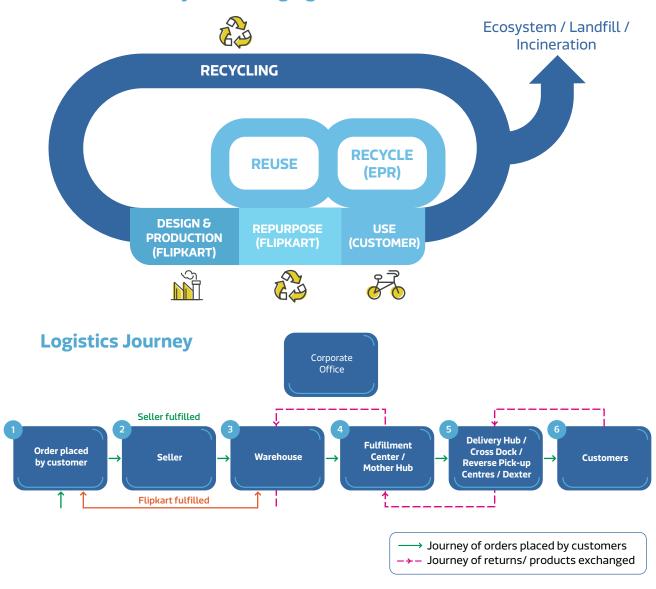
Marketplace seller adoption for **sustainable packaging reached 75%+**. It began with targeting **70 hubs** in the state of Maharashtra and today it covers **700+ hubs across the country**.



# Packaging in the E-Commerce Supply Chain

Flipkart is currently trying to galvanize the use of sustainable packaging across all its different sectors of the value chain. Below we provide an overview of packaging touch-points through different fulfilment models in the e-commerce value chain.

### **Circular economy for Packaging**



# Plastic use reduction initiatives across the supply chain

Supply chain engagement forms a key part of Flipkart's strategy to ensure circularity in packaging. Flipkart has a dedicated supply chain and last-mile infrastructure with several hundreds of large and medium-sized fulfilment centres and mother hubs across the country, helping seamlessly deliver over millions of shipments every day across the nook and corner of the country.

Flipkart has been exploring and introducing different packaging concepts across its supply chain to phase out single-use plastics, increase the usage of recyclable plastic and replace plastic products with sustainable materials, based on their availability. Flipkart has been targeting all the components of its four-pillar approach in its plastics value chain:

### **Engagement**

#### The Policy Landscape

Plastic waste management has been a concern for India since 1986. Since then, the Government of India has introduced multiple provisions and amendments to manage plastic waste, the latest of which is **Plastic Waste Management Rules 2021** released by the Ministry of Environment, Forest and Climate Change (MoEFCC). The rule identifies various stakeholders such as producers, manufacturers, importers, recyclers, etc., and specifies each stakeholder's role in plastic waste management.

Provisions such as Extended Producers Responsibility (EPR) makes it mandatory for plastic waste producers to minimize waste generation and take responsibility for collecting post-consumer waste. Globally, EPR has been effective in some ways, in combination with different policy tools, such as disposal regulation and taxes. The rules also identify 20 single-use plastic items that need to be prohibited by 2022, the identified plastics are mostly produced locally by small and medium industries and sold without branding. The rules look at a phase-out plan starting from 30th September 2021 and going up to 1st July 2022.

In India, as uniformity in guidelines, clarity on roles & responsibilities, infrastructure continues to evolve, the EPR scheme will go on to be more widely adopted across the country. In June 2020, the government released a draft of the guideline document on the uniform framework for EPR with various amendments to manage plastic waste effectively.

Flipkart has been identified as a 'Brand Owner' and is responsible for collecting and channelizing the plastic packaging that it puts into the market. To meet its EPR targets, Flipkart works with multiple PROs (Producer Responsibility Organizations) to collect the plastic packaging waste on behalf of Flipkart and get it sent to authorized recyclers/co-processors. As Flipkart continues to partner with change-makers across e-commerce, it believes in putting the best step forward to solve some of the challenges at scale.

Flipkart understands that the greater problem of plastic waste management can be holistically approached only through Public-Private Partnerships. With these initiatives, Flipkart plans to work collaboratively with the state and central governments and proposes Public-Private Partnerships where Urban Local Bodies, State Pollution Control Board (SPCBs), and Central Pollution Control Board (CPCBs) can collaborate with private stakeholders to improve the current waste management infrastructure in the country.



### **Innovation**

With an aim to achieve zero packaging waste, Flipkart has adopted various ways to enhance the use of recyclable packaging materials across its value chain.

Initial pilots in 2019 to reduce and reuse packaging and recycling generated plastic waste developed into an organization-wide program to find alternatives to plastic materials used. The teams went through a design and development process to scout for options to advance efforts to ensure zero waste landfills. It was important to ensure that the alternatives being adopted could handle the pressures of the e-commerce supply chain, be sturdy enough to adapt to characteristics of different product categories and most importantly, be affordable and scalable for seller partners. Flipkart developed guidelines for the sellers to adopt sustainable packaging but also fostered creativity and innovation by the sellers who were then able to co-create different packaging options with them. The packaging designed by in-house teams were also made available to seller partners for use.

#### **Pilot Phase**

Flipkart's team conducted pilots to identify the sustainable alternatives to reduce single-use plastic and the most efficient way of implementing them.

	Alternatives	To Replace	Challenges
1	Compostable Bags	Poly based security bags	<ul> <li>Domestic supply not available in quantities required for Flipkart.</li> <li>Significant cost even at scale.</li> <li>Not compliant with guidelines across regions.</li> </ul>
2	Paper bags with Normal HS Lacquer Coating	Poly based security bags	Packaging suffered physical damage due to moisture which caused security-related concerns.
3	Paper bags with Fibre Mesh	Poly based security bags	Manufacturing capabilities could not be scaled to meet requirements and the alternative was cost-intensive.
4	Jute Based Bags	Poly based security bags	<ul> <li>Process not scalable in Fulfilment Centres due to constraints around space and productivity.</li> <li>Supply of alternatives was not scalable to meet Flipkart's manufacturing requirements and quality standards.</li> </ul>
5	Honeycomb Paper Bubbles	Bubble wraps	<ul> <li>Customisation as per application was not possible.</li> <li>Not available in quantities required for Flipkart.</li> </ul>
6	Paper Fillers	Bubble wraps	<ul> <li>Process was not scalable in Fulfilment Centres due to constraints around space and productivity.</li> <li>Tried with some more iterations like developing customised machines that can make 2-ply perforated wraps, the alternative to bubble wrap. These machines were installed at vendor locations.</li> <li>Initially, eight vendors (2 in each Zone) installed these machines to supply the converted material to Flipkart. Later, we expanded this to almost all carton vendors.</li> </ul>
7	Eco wraps	Stretch films	Process was not scalable in Fulfilment Centres due to constraints around space and productivity.
8	Paper wraps	Shrink films	<ul> <li>Packaging suffered physical damage due to moisture which caused security-related concerns.</li> </ul>

### Scale-up Phase

As the program evolved, Flipkart scaled up its processes to adopt the identified alternatives and deploy them across day-to-day operations.

- Replacement of air bags with shredded paper
- A shredding or meshing machine converts corrugated boxes into mesh sheets which are used as a void filler or cushion wrapper to protect products from transit damages. These machines were installed at all of Flipkart's major fulfilment centres. Currently, no material is procured for void fillers, and corrugated cartons received from seller partners are recycled.
- Plastic used for secondary packaging replaced with paper bags and multi-use polyester bag (MUPC) for reverse shipment processes

Multi-use polyester bags will be used for reverse shipments. These bags are RFID tagged and can be used for multiple cycles to make them economically viable. Bags are reusable and are made of cloth which can be further recycled back to yarn and then back to cloth. This is an *industry-first in-house design*.

· Ecommerce-ready packaging

The solution to permanently do away with the need for a secondary layer of packaging in shipments and ship in primary packaging. There has been product capacity built to support the 'E-commerce ready packaging' initiative which determines the need for secondary packaging based on product categories and geography. As of July 2021, Flipkart shipped 15% of orders through 'Ecommerce ready packaging'



- Stretch wrap replaced with usable belts
  Reusable belts are nylon-based belts with
  velcro, which are used multiple times as an
  alternative to plastic stretch films for
  palletisation. These belts can be 100%
  recycled.
- Invoice polybag replaced with paper pouch
   Polybags used for attaching customer invoices to packaging have been replaced with a recycled Kraft paper pouch. It is made of 100% recycled paper, which gets further recycled, leading to zero landfills.
- Security paper bag made from virgin Kraft paper

The security bags have a registered heat seal coating and a water repellent coating on top for protection. These bags are made from 100% paper and can be again converted to pulp for making recycled paper. This is again an *industry-first in-house design*.



### Performance so far

### (Fulfilled by Flipkart / Own Supply Chain)

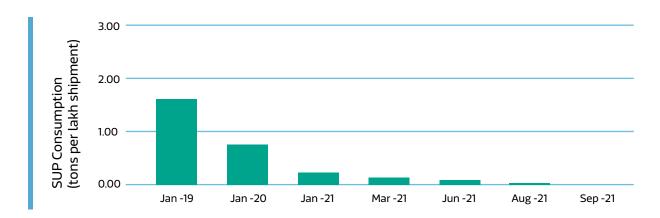
Flipkart has undertaken a series of initiatives to accelerate progress towards **eliminating 100% single-use plastic in its own supply chain by 2021** for owned and operated facilities to replace it with suitable alternatives.

Plastic	Alternate	Current State
Invoice Poly Bag	Paper Pouch	Fully Converted
Stretch Wrap	Nylon Belts	Fully Converted
Bubble Wrap	2 Ply wrap, Shredded Fillers	Fully Converted
Security Bag - Reverse	MUPC Bag	In experiment stage
Security Bag - Forward	Paper bag, Shipping without packaging (ecom ready packaging)	100% Converted (Implemented GP on 85% marketplace network
Others (Shrink + Pouch)	Paper Sticker, Paper Pouch	Implemented in MH, Under Observation

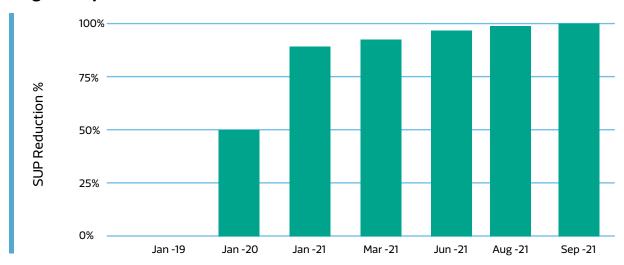


Flipkart has been able to achieve the milestone of 100% reduction in plastic packaging in its own supply chain by replacing the plastic fillers.

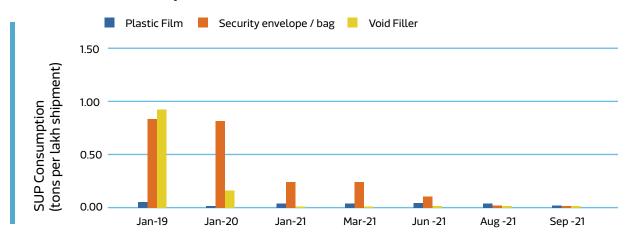
### Single-use plastic consumption trend



### Single-use plastic reduction trend



### Material wise consumption trend



### **Capacity Building**

### (For operations fulfilled by seller partners from their locations)

Flipkart's transition to sustainable packaging constituted taking a meticulously planned methodical approach which was driven by capacity building for education & awareness of sellers and suppliers, an innovation-led strategy combined with engagement & compliance with national and state-wide regulatory bodies. Starting with Karnataka, Flipkart rolled out guidelines & training sessions to bring sellers under the purview of sustainable packaging. This program was started with 70 hubs in Maharashtra and has been presently scaled to **700+ hubs** across the country. More than 20 webinars and educational campaigns were conducted to educate and train sellers on 'Ship Only in Primary Packaging', selecting the appropriate packaging size and other aspects. This practice has catayzed adoption by our seller partners across the country while making sure that all changes adopted are relevant to the regulatory requirements in each region.

As of September 2021, 75%\* of the total marketplace orders going through the seller fulfilment model are packed in sustainable packaging. Flipkart is planning to spearhead this initiative by helping sellers achieve the goals through all possible fronts, i.e. from ensuring the designs are sturdy enough to handle the pressures of the whole supply chain to ensure scalability and affordability and design systematic processes around it.

### **Marketplace**

75%+ of units through seller-fulfilled operations delivered in sustainable packaging. (As of Sep 2021)

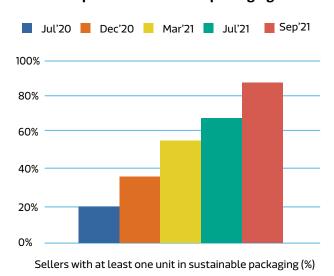
#### 3x+ jump

Number of sellers switching to sustainable packaging (compared to July 2020) indicating that seller network understands sustainable packaging. 85% of total sellers ( As of Sep 2021) made the switch to non-plastic packaging

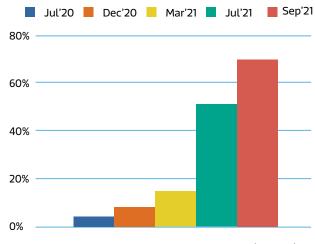
#### 20x jump

Number of units being sent in sustainable packaging in the marketplace (since this initiative's inception). Communication is being rolled out to sellers to switch over to non-plastic packaging using a phase-wise approach starting from the south then moving to all India.

### Seller adoption of sustainable packaging



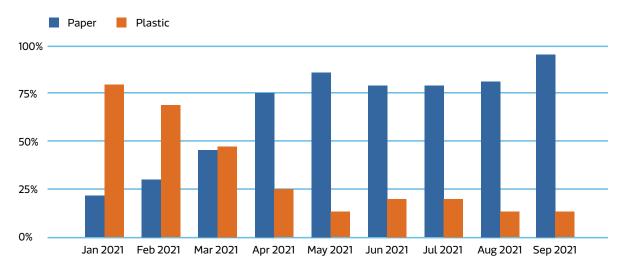
#### Share of units delivered in sustainable packaging



### **Myntra**

An integral part of the Flipkart Group, Myntra brings together technology and fashion to create a differentiated experience in the fashion and lifestyle space in India. The company has partnered with over 5000+ leading fashion, beauty and lifestyle brands in the country to offer a wide range of styles across categories. Like Flipkart, Myntra places a strong emphasis on sustainable and responsible business practices across every aspect of its operations of which sustainable packaging has been one of the key commitments. Myntra's packaging teams developed an end-to-end program to outline a vision to be 100% plastic-free. This included working across sustainability, government relations, compliance, procurement, legal, packaging design, supply chain logistics and warehousing, market-place sellers and supplier management as well as product teams at various stages. Myntra's supply chain is now entirely 100% plastic-free.

### Paper and Plastic consumption at Myntra's fulfilment centres

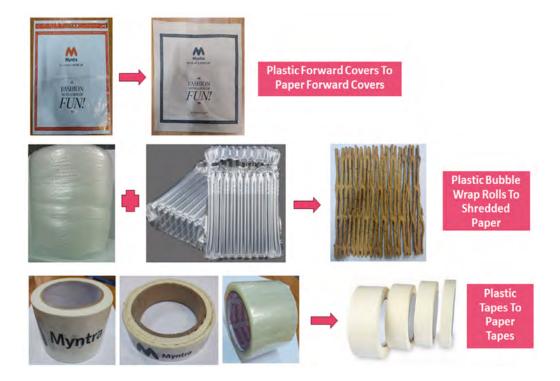


Myntra's seller partners have adopted sustainable packaging through an initiative implemented across 4 zones in the country. Myntra's transition to sustainable packaging in 2021 led to the diversion of over 1.4k tonnes of plastic from the landfill supported by numerous educational webinars and training sessions conducted to help vendor partners implement paper packaging.

#### Timeline



### **Paper Packaging Implementation**



### Challenges faced in the transition

- There were limited like-to-like alternatives available in the ecosystem to replace plastic. The alternatives were tested over a 6 month period and design and conceptualization were co-owned by the packaging teams and the procurement teams with the mills and suppliers. Several alternatives were tested and some were dropped due to challenges in scalability or functional requirements.
- The cost of going with available alternatives like Compostable/Biodegradable bags was very high.
- Customised solutions needed to be designed for compatibility with autopacker machines taking into account sealing strength, perforations, paper strength and elasticity of the bags. Myntra is the first company in India to have developed a solution for adapting existing machines which were designed and built to run plastic bags only to then process paper packaging. A unique QR code scanning was introduced for each bag to prevent packers from using plastic bags in place of paper bags.
- Capacity building to train stakeholders to handle paper bags as they are susceptible to more tears compared to plastic bags.
- Customization and procurement of shredder machines for every Fulfillment Centres.
- Negotiating a lot of cost impacts by making improvements in other packaging SKU's. Cost equalisation for vendors across regions for alternatives to ensure feasible procurement of material.
- Constant policy improvements in the regulatory environment around Plastic Packaging and Plastic Waste Management across federal and state-wide regulations. The teams stayed abreast of all regulations and continued to bring clarity to various points as these regulations were being developed.

### **Employee Engagement**

As Flipkart continues to incorporate sustainability across its operations, an important aspect of this journey has been replicating these practices across our workplaces. Employee awareness campaigns and engagement programs initiated in 2019 on effective waste management, minimising the usage of plastic and using environmentally friendly alternatives throughout Flipkart's offices have contributed to establishing a culture committed to sustainability throughout the organisation.

Flipkart has been actively working towards educating its employees on sustainable packaging & waste management. To do that, it organised an extensive campaign named #TrashyNoMore to raise awareness amongst employees about effective waste management. Under #TrashyNoMore, various initiatives have been initiated to reduce plastic waste production within the Flipkart offices. Some of these initiatives include:

- Flipkart's headquarters continuously eliminate the need for single-use plastic products.
- Interactive kiosks are set up to convey proper waste segregation practices followed by modification of designs and signage across common use areas within the office premises adapted to employee usage patterns to enable them to follow these practices.
- Monthly report cards are sent out during the #TrashyNoMore campaign, outlined causes of concern and communicated the appropriate practices to be followed for employees.
- In 2020, as part of our World Environment Day program, Flipkart also organised workshops for employees to educate them on zero-waste practices in their homes, offices, and commute.
- Products used by employees in pantries and tuck shops were replaced with durable and sustainable alternatives to reduce single-use plastic waste.
- In line with the Swachh Bharat Abhiyaan, Flipkart launched an initiative to encourage segregation, and interactive kiosks were set up as the first step to engage employees and raise awareness.



As a response to #TrashyNoMore, Flipkart's office has been able to achieve:

- 90% reduction in single-use plastics and paper products across the facility
- Most waste is now managed bin-to-bin (minimal use of plastic liners)
- Most importantly, waste management is now a very familiar subject and a key consideration in most of what the organisation does



### Compliance

### **Our EPR Journey**

To address the issue of plastic waste management in India, the Government of India through its Ministry of Environment, Forests and Climate Change had notified the Plastic Waste Management Rules, 2016 ('PWM Rules') on 18 March 2016, which were subsequently amended in 2018. Under these rules, producers or brand owners of plastic waste are required to work with States, Union Territories, Pollution Control Boards (PCBs), Local Bodies and Panchayats for effective plastic waste management and establish modalities for waste collection systems.

Towards fulfilling its compliance requirements under the Plastic Waste Management (PWM) Rules, 2018 and its subsequent amendments, Flipkart is working with 3 PROs (Producer Responsibility Organization) across India towards collection and channelization of post-consumer plastic packaging. Plastic material going for disposal is produced at two stages.

- Pre-consumer packaging: When the excess plastic packaging is disposed of at the storage area
- Post-consumer packaging: When the consumer receives the ordered item and disposes the plastic packaging in the bins, eventually getting collected by ULB (Urban Local Bodies)/ Municipalities

The PRO takes responsibility for collecting and channelizing the plastic packaging waste from the storage areas as well as from the respective Urban Local Bodies/Municipalities. The collected material is sent to authorized recyclers/co-processors across the geographical zones of the country.

The recyclers/co-processors issue a certificate of recycling to Flipkart as a proof of evidence, confirming that the material has been responsibly recycled.l, Flipkart conducts the due-diligence of the documents which are submitted by the respective PROs, before filing the quarter/half-yearly returns to CPCB/SPCB.

Under Flipkart's EPR plan, the company has successfully recycled 100% of the total single-use plastic it had put into the market in 2020 and 2021 (till date).

### Metrics for 2020 as submitted for EPR (Owned and Operated)

### 2020 Consumption & Collection (in tons)

Classification	Flipkart	Myntra	Total
Post-consumer waste generated (SUP)	1907	1749	3653
Internal Plastic waste generated (SUP)	1106	411	1518
Single-use Plastic (SUP)	3013	2160	5171

### Metrics for 2021 as submitted for EPR (Owned and Operated)

#### 2021 Consumption & Collection (in tons)

Classification	Flipkart	Myntra	Total
Post-consumer waste generated (SUP)	1246	477	1723
Internal Plastic waste generated (SUP)	743	345	1088
Single-use Plastic (SUP)	1989	822	2811

Disclaimer: 2021 values are projected numbers for the year

Through Flipkart's consistent efforts in collaboration with different ecosystem partners in reinforcing the guidelines laid out by the Extended Producer Responsibility (EPR), it has been able to achieve the following impact:

- Reduce the use of plastic in its value chain by finding innovative alternatives
- Shift to sustainable/alternate sources for the remaining plastic
- Improve recovery rate or divert plastic to other alternatives
- Spread awareness and indulge customers
- External stakeholder engagement and collaborative approach

### **Learnings and Way Forward**

As Flipkart continues to reduce plastics across its value chain and make the packaging more sustainable, the company has identified some of the next steps it has to take to evolve the plastic value chain. The recommended steps are as follows:

### Data-based goal setting

Ensure a data-driven approach to waste management and regularly track the impact of alternatives. As we move towards a zero-waste future, all our waste management practices have helped in creating an understanding of our plastic consumption across the value chain

#### An open view

Create an ecosystem view of the entire waste management journey for plastic packaging

### Play by the book

Create a state-by-state playbook for training and education across all stakeholders (employees, consumers, and suppliers)

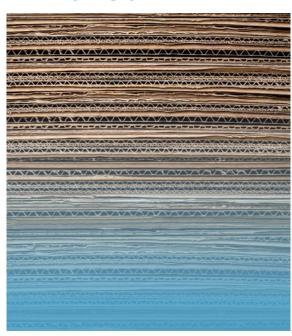
#### Keep focussing on alternatives

Identify and implement the right alternatives to plastic that can sustainably replace plastics

### Challenges in transitioning to the closed-loop plastics recycling system

Through this journey, Flipkart has also identified some fundamental challenges to be addressed to create a closed-loop plastic recycling system. These include:

- Limited recycling infrastructure in the country which cannot keep up with the current waste production.
- Absence of a standardised knowledge database on what can/cannot be recycled/responsibly processed across all cities and states
- Lack of scalable alternatives identified that are compliant with plastic waste management norms across all states in the country
- Low quality of recycled material due to inefficient segregation leading to inconsistency in supply as well
- Low collection and recycling rates at this moment cannot keep up with the demand for plastic in the market



### **Support Testimonials from Sellers**

#### **HAIDEN Ecommerce**

- Can you share an overview of your experience in using green packaging?
- Green packaging is easy to use, store and recycle. Also, packing has become easy as we convert to boxes or paper pouches.
- What was the feedback from your customers when you shifted to green packaging?

Customers are happy as they like green packaging. We have decided to also adopt it as part of our brand messaging.

• What would help you to adopt more green packaging?

Lower costs will be a good factor as currently the cost of green packaging is higher than plastic. Also, sending products directly without outer packaging will be beneficial in total elimination of packing material. We can strengthen our boxes to make sure no breakage happens in transit.

How have you incorporated green packaging into your brand messages?

Right now our plans for this are work in progress. The idea is to share posts via our social media handles and make our customers aware of this initiative.

### **Spacely Digital**

· What has been your overall experience with using green packaging?

It has been a good experience switching to green packaging. There is great ease of disposal and recycling. We can easily dispose of packaging through local scrap dealers, who in turn sell it to paper mills for recycling.

We are also planning ways to reuse the packaging for other utility purposes (e.g. storage using cartons)

What was the feedback from your customers when you shifted to green packaging?

Customer feedback has been improving since we have started using cardboard boxes. This new packaging has drastically reduced in-transit damage and therefore converts to a better customer experience.

• What would help you to adopt more green packaging?

Less cost would definitely be a big win! The cost of green packaging is slightly higher than the traditional plastic packages, but we have seen an improved return rate and customer feedback which offsets the additional cost at the onset. Another aspect we have noticed is that in-transit damages have reduced, and thus there are fewer leakages.

• How have you incorporated green packaging into your brand messages?

We have not yet begun this exercise but it is surely on our roadmap for the future.



### Conclusion

Businesses are crucial to ensure a holistic, circular plastic ecosystem to reduce plastic leakage into nature. As a homegrown e-commerce marketplace, Flipkart has a large secondary packaging footprint, making plastic waste management a key lever in its commitment to sustainability. The best practices adopted by Flipkart can be replicated by players in the same space for greater uptake to contribute to the mitigation of plastic waste.

Flipkart's active contribution towards fewer plastics in the environment is based on doing things differently. Similarly, all plastics value chain businesses need to organize their strategies to incorporate targets towards plastic reduction and its management in their value chain, and venture into different designs of packaging and distribution models to improve recycling and recovery rates. They need to customize interventions to influence consumer behavior and collaborate for improving and innovating the existing collection and recovery infrastructure, and grow it further. Leader companies need to set up goals for other companies who wish to similarly engage and bring about a better plastics waste response to ultimately contribute towards plastics waste mitigation and the greater good of society.

Flipkart recognises that a systemic change is required across the entire plastic waste ecosystem, which is why it has brought in initiatives, with all its value chain stakeholders, namely, sellers, buyers and vendors.

Flipkart is committed to a future that is a circular plastic economy by helping establish a culture of peer-to-peer knowledge and best practices exchange between businesses, for fostering collaboration and innovation across their supply chains.











