



WEST COAST PAPER MILLS LTD

Presentation on
**REPLACING SINGLE USE PLASTIC BY PAPER FOR FOOD
PACKAGING APPLICATIONS - DEVELOPMENTS BY WCPM**



Anuj Kumar Tayal
Sr. Vice President (TECH)

Date: 03.08.2023



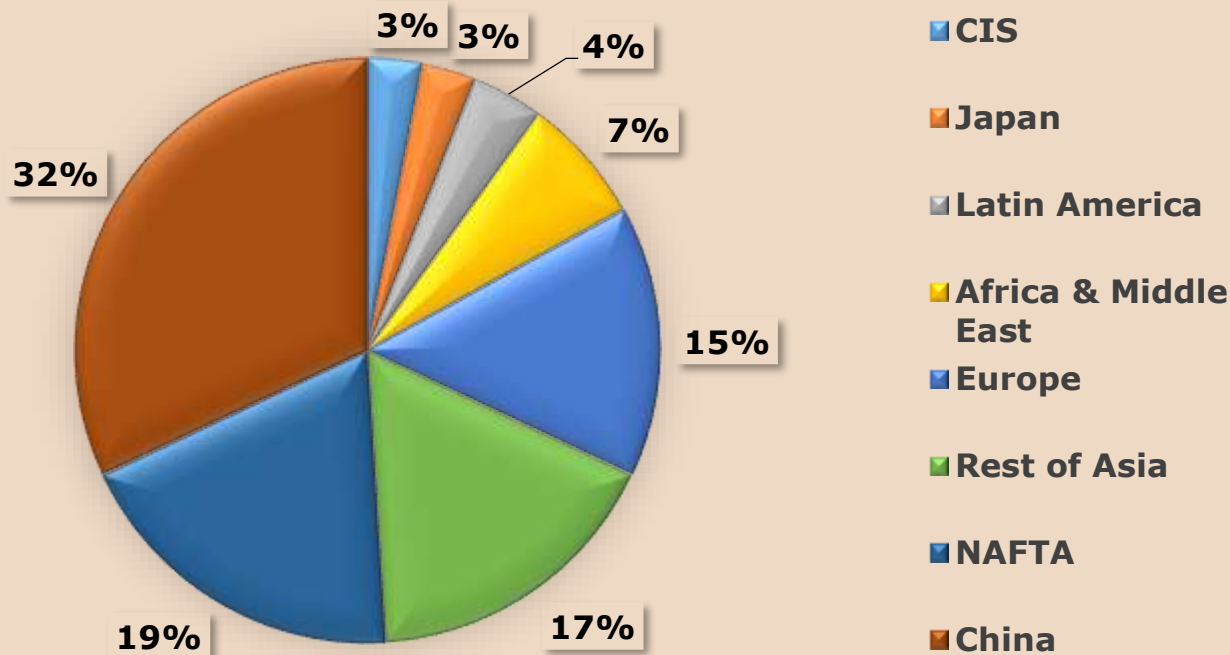
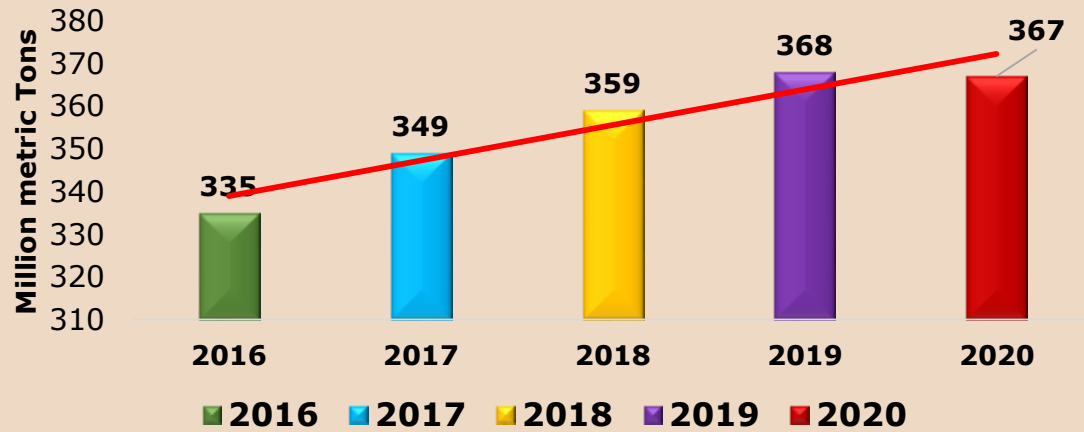
Plastic comes from Greek word Plastikos which having properties as

- Mouldable
- Flexible
- Easily Handleable

Concern:

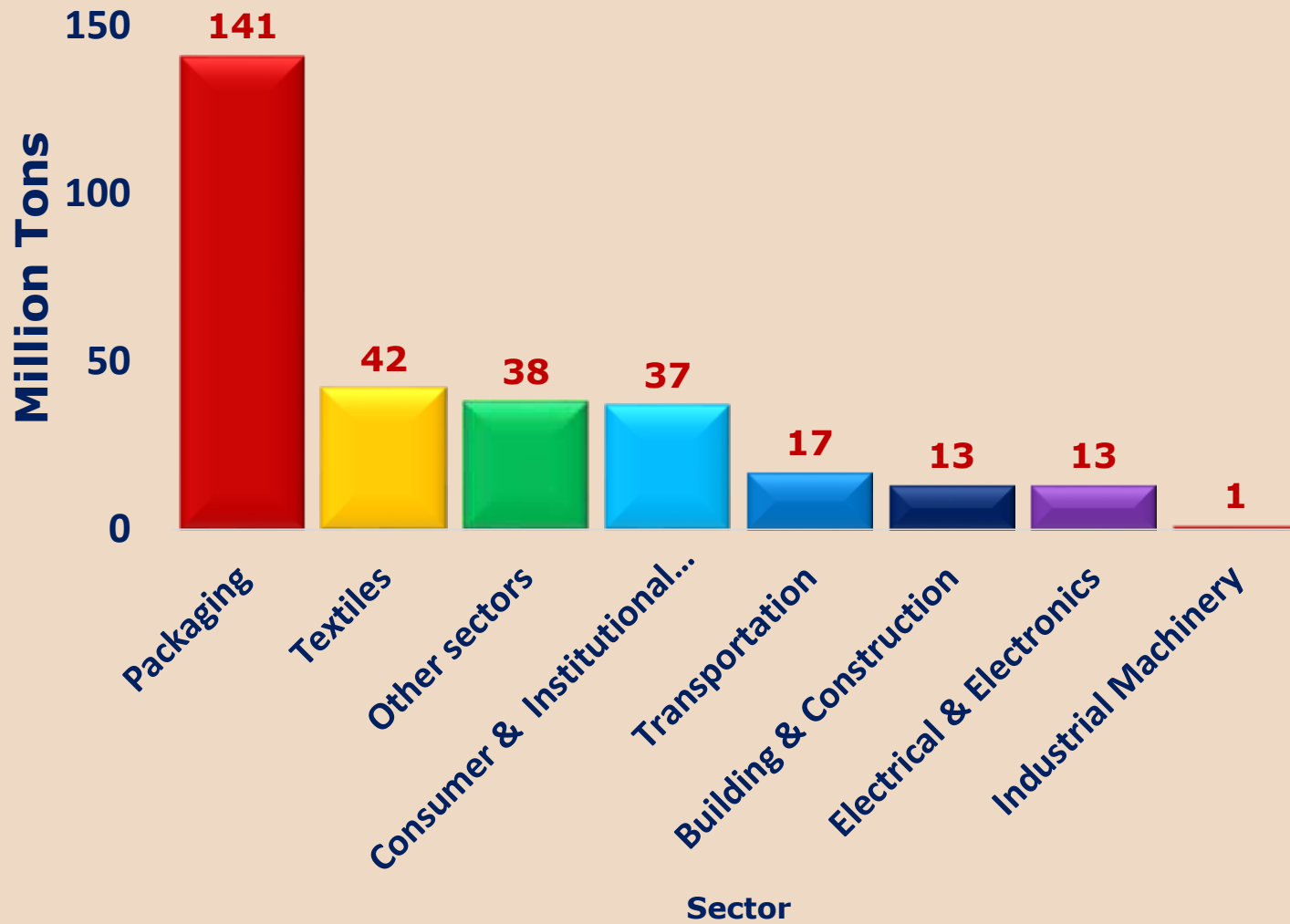
Due to non decomposable nature of plastic, its waste mainly impact the environment badly.

Plastic Production Statistics



- ❖ Plastic production increased gradually from 2016 to 2019
- ❖ Production impacted in 2020 due to Covid pandemic.
- ❖ China produces 32% of Plastic

Plastic Waste by Industrial Sector



❖ Primary waste generation influenced by 1) Plastic use 2) Product life time.

❖ Highly plastic waste generation by packaging as 46% mainly for

- Plastic shopping bags
- Shrink wrap
- Bubble wrap
- Stretch wrap

Single Use Plastic

Single use plastics are goods/articles that are made primarily from fossil fuel based chemicals and are meant to be disposed off just after use

Single use plastics are most commonly used for packaging and service ware as Plastic Bottles, Wrappers, Straws, Polythene bags, Ready packed Food small containers etc.



Loss on Environment From Plastic Waste

The disposal of the plastic waste is problematic as

- ❖ Resistance to decomposition
- ❖ Very low recycle rate (less than 10%)
- ❖ Maximum amount disposed as landfills.
- ❖ Toxic chemicals from small plastic pieces drains and impact ground water as well as flowing into lakes & rivers and to the oceans.

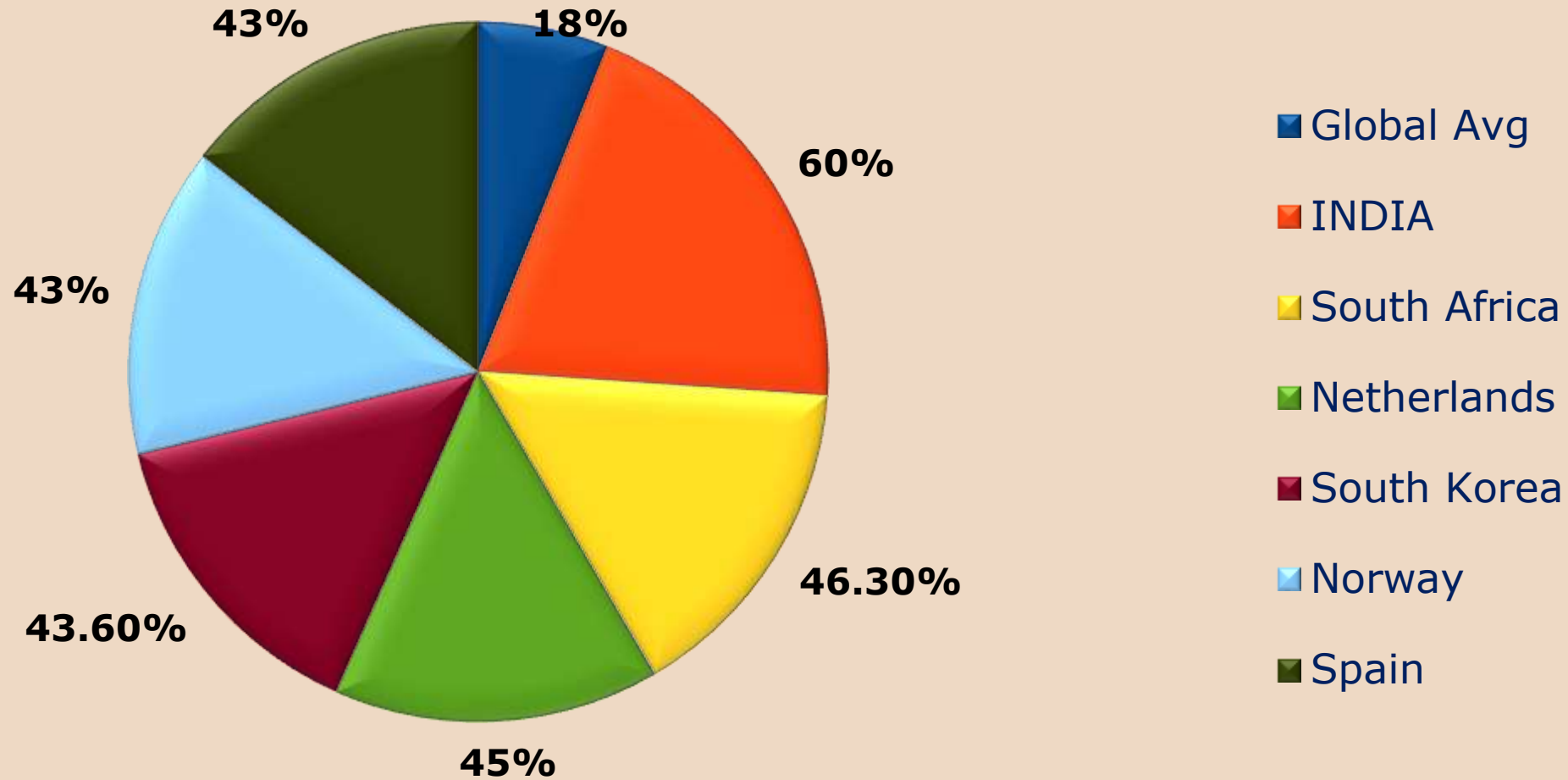


Indian developing economy



- ❖ Increase in trend of the takeaway day by day
- ❖ Covid Pandemic has accelerated this trend because of Hygiene consciousness
- ❖ Take away Packaging accounts more than 40% of waste due to poor disposal culture
- ❖ Most of these items are not recyclable

COUNTRIES WITH BEST RECYCLING RATE



The above chart clearly shows that India is doing well in plastic Recycling rate.

How Paper Beats Plastic?

- ❖ Easily biodegradable
- ❖ Reusable
- ❖ Recyclable, so it is good for the environment.
- ❖ Paper packaging with less/no plastic is one of the best alternative due to its lightweight & strong, making it an incredibly versatile material.
- ❖ So the eco-friendly food packaging made from the renewable sources is becoming more and more relevant.



Use of Paper against Plastic in Food Packaging

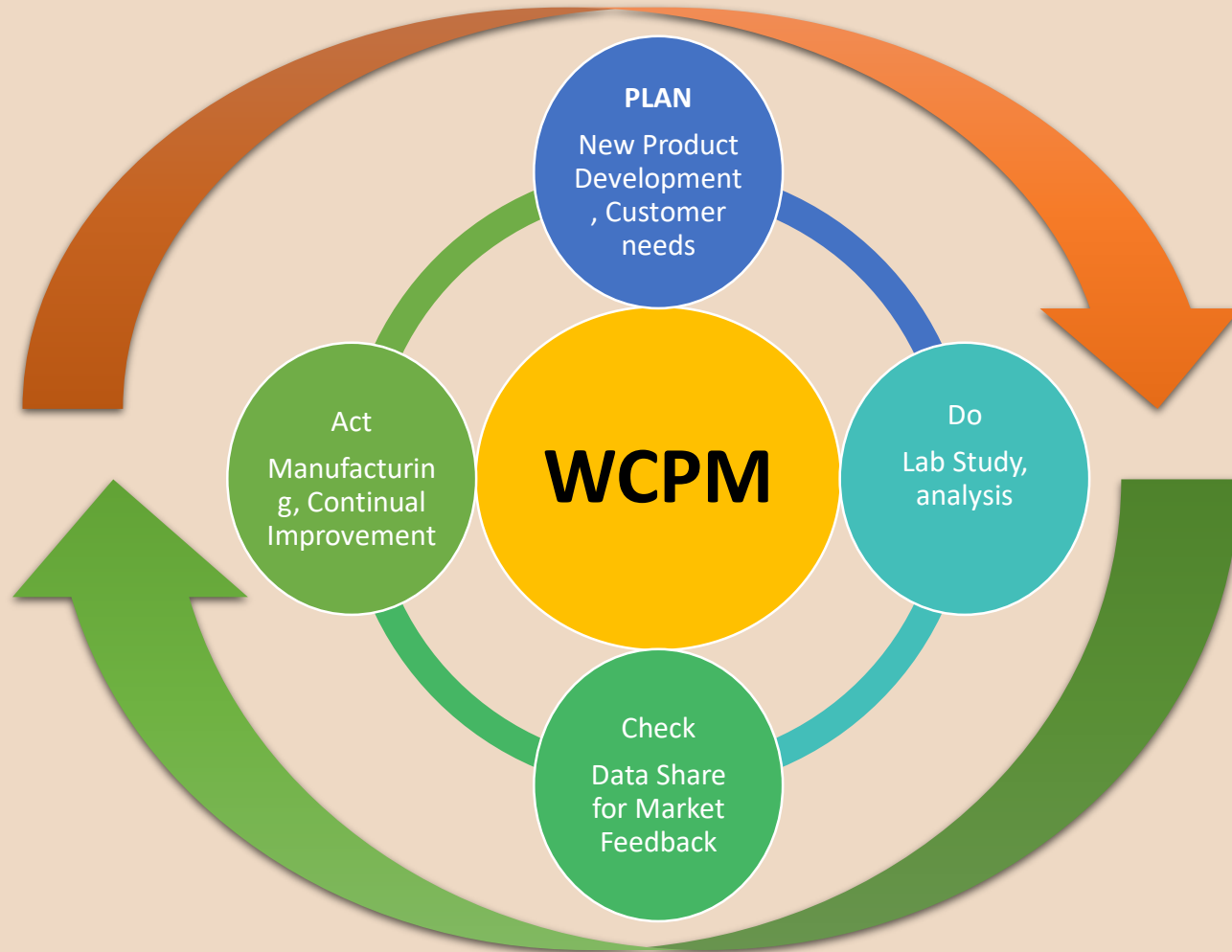
- ❖ As food packaging, paper is cost competitive alternative to plastic
- ❖ Amid customer expectations that food brands reflects their Environmental issues, paper fulfils the three Ps of Successful food packaging as:
 - **Protection**
 - **Preservation**
 - **Presentation**
- ❖ Paper also performs consistently as well as or better than plastic





Paper Packaging can be 100% Recyclable. Paper packaging can simply be disposed of in home Recycling bins, unlikely many other process for plastic recycling.

WCPM's Approach towards minimizing Single use plastic



WCPM's approach is always based on **PDCA cycle** by knowing the customer needs, market requirements, developing prototype, feedback from the customer for better development, sustainability in quality and continual improvement.

Journey of WCPM

Development of Products



2009

Development of Cup Stock



2016

Development of
Cup Bottom
Paper Bags



2018

Development of Paper Straw



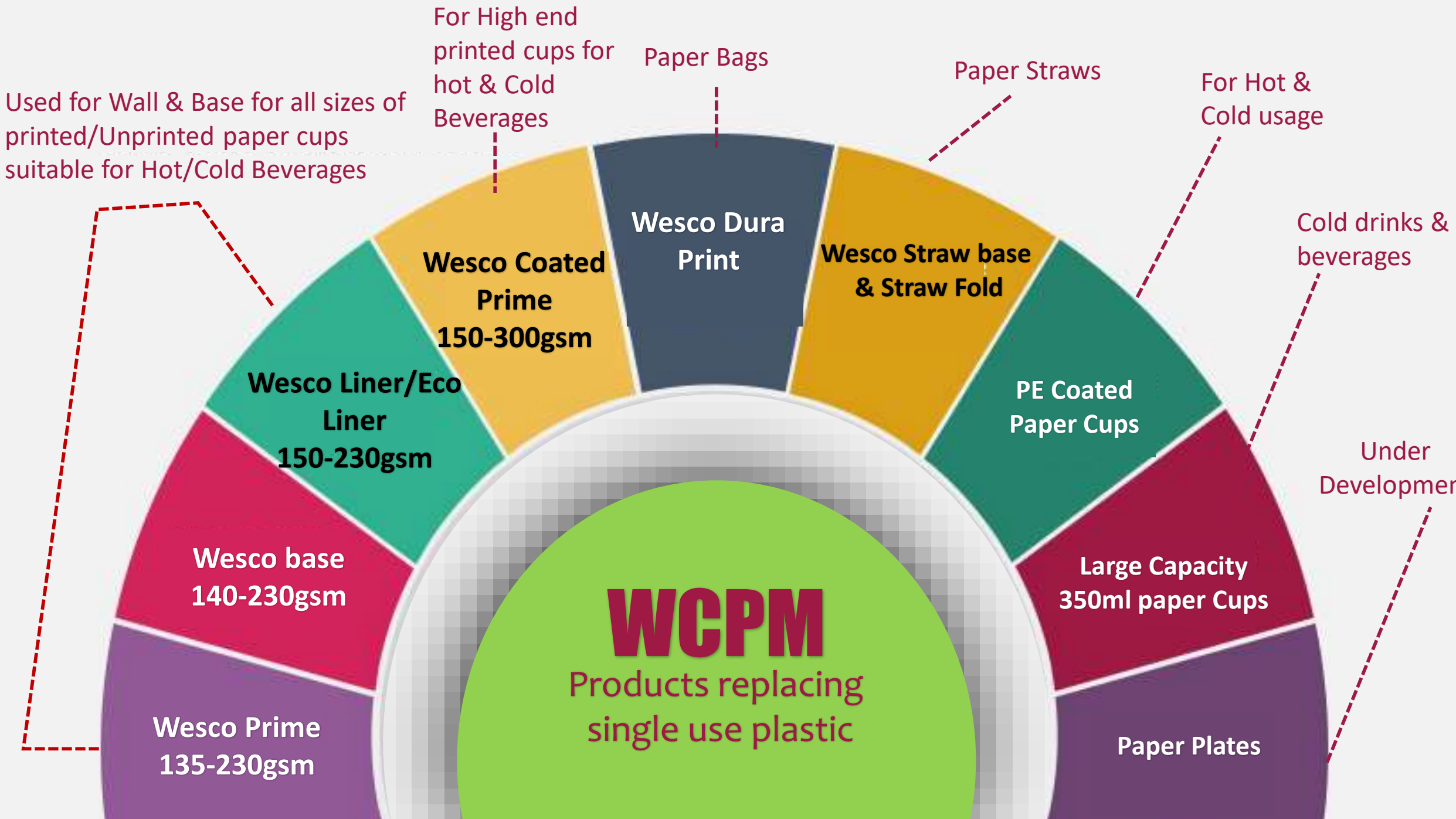
WCPM

Sustainable product
Which are eco friendly.



WCPM

contributing on
sustainable basis to
replace single use plastic
with variety of paper
products



WCPM
Products replacing
single use plastic

Wesco Prime
135-230gsm

Wesco base
140-230gsm

Wesco Liner/Eco
Liner
150-230gsm

Wesco Coated
Prime
150-300gsm

Wesco Dura
Print

Wesco Straw base
& Straw Fold

PE Coated
Paper Cups

Large Capacity
350ml paper Cups

Paper Plates

Used for Wall & Base for all sizes of
printed/Unprinted paper cups
suitable for Hot/Cold Beverages

For High end
printed cups for
hot & Cold
Beverages

Paper Bags

Paper Straws

For Hot &
Cold usage

Cold drinks &
beverages

Under
Development

PAPER CUPS

150gsm

Stretch (%) : 2.4/5.2

Stiffness (g.cm/15°) : 20/8

Bulk (cc/g) : 1.15±0.05

2012

165gsm

Stretch (%) : 2.4/5.2

Stiffness (g.cm/15°) : 26/9

Bulk (cc/g) : 1.15±0.05

2009

150gsm

Stretch (%) : 2.5/5.5

Stiffness (g.cm/15°) : 22/9

Bulk (cc/g) : 1.18±0.05

2023

165gsm

Stretch (%) : 2.5/5.5

Stiffness (g.cm/15°) : 28/10

Bulk (cc/g) : 1.18±0.05



With improved stretch & stiffness, acceptability of the product in market is highly satisfactory. Now normal public is also encouraging the paper cups against plastic disposable cups due to increased awareness.

PAPER BAGS

90gsm

Burst Factor : 27±1

Wax No Pick (No.) : 14A

2016

100gsm

Burst Factor : 28±1

Wax No Pick (No.) : 14A



90gsm

Burst Factor : 32±1

Wax No Pick (No.) : 16A

2023

100gsm

Burst Factor : 31±1

Wax No Pick(No.) : 16A

Improved BF and Wax Pick for high quality solid printing (Brand Image). Main market player (Brands) also encouraging paper bags against the plastic bag with much more clarity of printing

PAPER STRAW

90gsm

Stretch (%) : 2.1/6.0
Stiffness(g.cm/15°) : 5.2/2.5
Bulk (cc/g): 1.38±0.02

2018

120gsm

Stretch(%) : 2.0/5.8
Stiffness(g.cm/15°) : 12.0/6.0
Bulk(cc/g) : 1.38±0.02



90gsm

Stretch (%) : 2.3/6.3
Stiffness(g.cm/15°) : 5.5/2.6
Bulk (cc/g): 1.40±0.02

2023

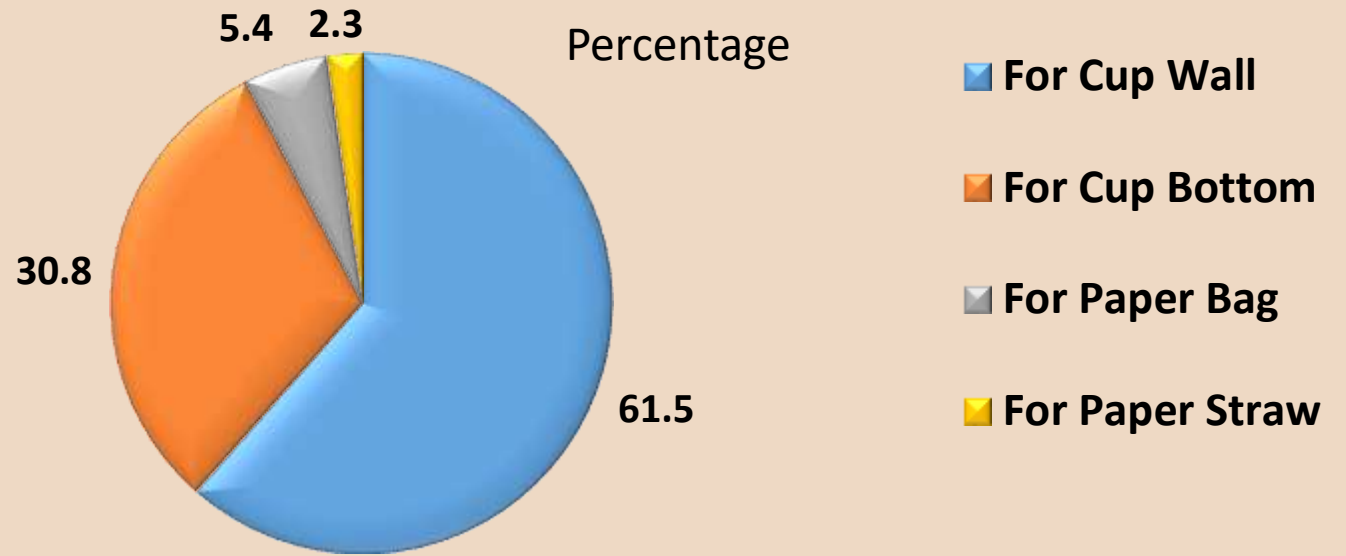
120gsm

Stretch(%) : 2.2/6.1
Stiffness(g.cm/15°) : 12.0/6.0
Bulk (cc/g) : 1.4.0±0.02

WCPM introduced new paper for making Paper Straw in 2018. Even though volume is less compared other products, definitely it will reduce no. of plastic straws used in markets

- ❖ WCPM owns its responsibility to develop new product for replacing single use plastic.
- ❖ Product as per customer needs, satisfaction & delight
- ❖ Able to set own target of 20% on our total volume bases for minimizing single use plastic

Product	Quantity/Annum
Paper for Cup Wall	40,000 MT
Paper for Cup Bottom	20,000 MT
Paper for Paper Bag	3,500 MT
Paper for Paper Straw	1,500 MT



FUTURE INNOVATIONS

- 🕒 **Planning to take commercial run of paper suitable for Paper Plates**
- 🕒 **Barrier coated paper is under development process which will add in our product basket of 100% plastic free paper cups.**
- 🕒 **Action towards major modification of our Multi-Layer machine will add more volume as well as improved quality parameters, which will further replace single use plastic.**

CONCLUSION

As paper is made from sustainable and renewable resources, more biodegradable and compostable, paper packaging is best solution to minimize/eliminate the single use plastic in food packaging. It's our responsibility to accelerate the usage of Paper in food packaging to serve our Industry and Environment.

Thank You.

