



Alternatives for polystyrene

Fruit packaging in Hong Kong

• Team 4 •

PAPER

POLYSTYRENE

CLING WRAP

PLASTIC BOX

PLASTIC STICKER







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Fruits
Overpackaging
in Hong Kong



02

Polystyrene
& its harmful effects



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Alternatives for
Polystyrene
Fruits packaging



04

Q & A



01

Fruits Overpackaging in Hong Kong





Advantages of Plastic Fruit Packaging in Hong Kong

01

Convenience for storage

Packaging provide convenience for stacking and storing food under limited spaces.

02

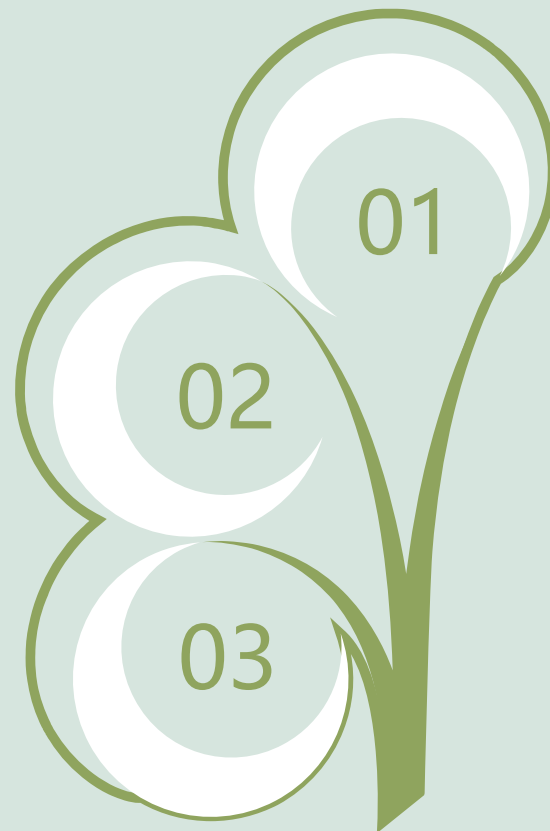
Illustrates social prestige

The more finely the fruit is packaged, the more "face" is shown to the recipients.

03

Protection during transportation

Most of the fruits in Hong Kong are imported from other countries



In Hong Kong



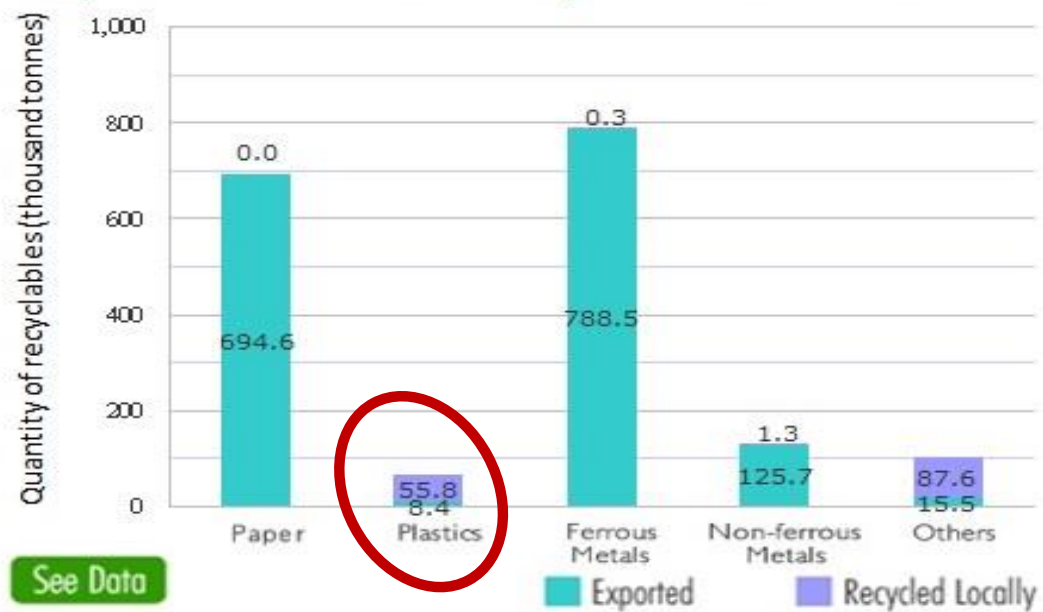
**2,000 tons of plastic
are generated each year**

=

90 double-decker bus

In Hong Kong

Recyclables recovered from Municipal Solid Waste in 2018



Low rate of recycling plastics

Sent to landfill

02

Polystyrene & its Harmful Effects



Polystyrene



Synthetic aromatic hydrocarbon polymer

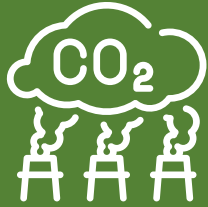
Made from the monomer styrene

Good fluidity

Excellent heat resistance

Light yet strong

Why is polystyrene dangerous?



Chemical exposure to ozone in the manufacturing process of polystyrene



Polystyrene ingested by marine life goes up the food chain



Toxins created when polystyrene is heated



Exposure of toxins in the manufacturing process of Polystyrene



Polystyrene Endangers the Marine Environment.

Absorbs other molecules



Polystyrene attracts and adsorbs other hydrophobic molecules. This is important because it means that micro polystyrene particles transport toxins into the marine environment.

Endanger marine environment



If polystyrene microparticles are ingested by animals, the toxins might be stripped from the PS and absorbed into the animal's system. This makes Polystyrene as highly toxic chemicals. .

Threat our health



These microplastics have turned the world's oceans into "plastic soup" thus threatening marine life's health and our health.

Time to Break Down?



03

Alternatives for polystyrene fruit packaging



Competition – VitaPack



Downside

- Deforestation
 - an annual cut down of 7 billion trees
- Non-durable under high humidity
 - paper is not water-proof

The Ultimate Alternative - Leaves Packaging



Eco-friendly way to keep your fruits and vegetables protected without any chemicals added to replace polystyrene.

Advantages

100% ECO-FRIENDLY



- Organic
- Chemical free
- 100% Biodegradable
- No Landfill and waste production
- Causes no deforestation
- Prevents destructive environmental issues

Obstacles in Hong Kong



Limited Land

Short Lifespan



**Under-developed
Green Waste
Management**



Overcome the obstacle



- Banana leaves were dried up in three days.

→
technology



- Can maintain a product for one year without adding any chemicals.
- No environmental pollution.



Overcome the obstacle



01

Less than the environmental pollution caused by plastic.

02

Applicable to other plants.

03

Exports and imports may not be necessary.



Impact of this new packaging on a community



General public

- Grow social awareness on using leaves packaging which is biodegradable



Company management

- Many companies will focus on eco-friendly packaging
- Will produce leaves packaging that is as good as plastic packaging



Recycling company

- Banana leaves can also be used as a good compost after disposal
- Sell them to create new sources of income



THANK YOU