

# PLASTIC WASTE

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CREATED BY



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Limited

BRIEF & SOLUTIONS  
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# ACKNOWLEDGEMENTS

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## Overview

Plastic is low-cost, durable, and light, which makes it a convenient material. Despite the listed advantages, plastic overuse and especially a strong inclination to produce and consume more single-use plastic products lead to disastrous consequences for the environment.

The Asian region is a plastic pollution hotspot. Hong Kong ranks among the countries with the highest single-use plastics consumption and waste rates in the world (more than 40 kg of annual plastics waste per capita, compared to 53 kg per capita in the US, the global leader in waste per capita). In Hong Kong, plastic waste disposal made up 2,312 tonne per day (21% of Municipal Solid Waste (MSW)) in 2020, from which only 7% was recovered by recycling measures.

Hong Kong is striving to expand its domestic recycling capacity, especially bearing in mind the upcoming implementation of the MSW Charging Scheme in the second half of 2023 which will impose charges by weight. In 2020, the Environmental Protection Department expanded the community recycling network and strengthened various waste reduction and recovery measures, and plastic recyclables' recovery rate increased from 8% in 2019 to 11% in 2020.

In Hong Kong, there are several laws, regulations, and initiatives which apply to packaging and plastics waste.

- **Plastic Shopping Bag Charging Scheme**

The Scheme has been fully implemented in the entire retail sector since 1 April 2015. It aims to reduce the excessive use of plastic shopping bags through a direct economic disincentive imposed on consumers as a mandatory charge of 50 cents for each plastic bag taken. The charge was increased to HK\$1 in December 2022.

- **Producer Responsibility Scheme on Plastic Beverage Containers (expected in 2025)**

The Hong Kong Government proposed to return used plastic beverage containers for recycling. Currently, in the trial run period, the government installed 120 Reverse Vending Machines in the city to enhance the operational efficiency of the PRS.

- **The Scheme on Regulation of Disposable Plastic Tableware (expected Q4 of 2023)**

The Environment and Ecology Bureau is planning to implement the first phase of the scheme and ban disposable plastic tableware provided by restaurants namely EPS tableware, straws, stirrers, cutlery, plates, cups, food containers, and their covers. As suggested, anyone who violates the regulation is liable to a fine of a maximum of HK\$100,000.

Adding to that, the government is phasing out the tricolour recycling bins due to their low efficiency especially in the aspect of plastic waste recycling. This indicates the government's intention to gradually improve the current sustainable waste management system.

## INSIGHTS FROM OUR TRIAL

Plastic did not make up a large part of our recycling when we did a waste reduction trial with 20 F&Bs in the SoHo Central district in Hong Kong as it only made up barely 1% of recyclables. Plastic is also lighter than other materials such as glass or metal and thus can be seen as less with regards to weight but it would not be the case when we consider volume. It is worth mentioning that some of the restaurants in the trial already eliminated plastic from entering their premises by working with local suppliers who deliver produce in crates that can be reused, which should be considered a good practice for the sector.

## GOOD PRACTICES & INNOVATIVE SOLUTIONS

Since packaging and plastic are a global concern, several countries set ambitious goals to achieve a reduction of plastic products in the F&B industry, apply extended producer responsibility, and increase the collection rates of plastics. The following practices implemented all over the world proved to be successful, so they might be an inspiration for operators in Hong Kong and Asia.

### Financial instruments

- In 2022, Ireland imposed a "latte levy" of EUR 0.25 (HK\$2.07) on single-use coffee cups, including compostable cups. The income raised from the scheme will support the development of reuse systems. In the longer term, additional environmental levies will also be imposed for cold drinks and other single-use plastic containers.
- The municipality of Capannori, Italy, introduced a 20% discount on the fixed part of the waste tax for all businesses that sell food and other products without packaging. It is done to promote purchasing of packaging-free products such as food, beverages, and detergents, thus reducing the amount of plastic waste produced.

### Edible packaging

- Notpla is an edible packaging made from brown seaweed. This waste-free alternative to plastic bottles and cups is made from a proprietary material that is cheaper than plastic and that can encapsulate any beverage including water, soft drinks, spirits, condiments, and cosmetics.
- Ecopoon is a Belgian enterprise that has developed an innovative material for tableware that is both edible and biodegradable. Spoons and verrines are sold in packs to professionals and the general public.

### Reusable takeaway packaging

- **REBOWL** is a deposit return system (DRS) for reusable food containers, designed to replace single-use takeaway and delivery food packaging in Germany. Customers can borrow a REBOWL – a BPA-free polypropylene bowl with a thermoplastic rubber lid – from participating restaurants and cafés for a EUR 5 deposit. Once returned, the bowls are washed and rented to the next customer.
- **The reCIRCLE** business model, originally developed in Switzerland, offers a deposit return system (DRS) for restaurants, grocery stores, or individuals based on reusable utensils and packaging for “food-to-go”. The scheme is open to everyone, from professional caterers and restaurants to individuals, meal services, school canteens, and corporate canteens.
- **DabbaDrop** is a London-based sustainable and plastic-free takeaway service for food. They not only save plastic containers by delivering pre-ordered meals in their dabbas (stainless steel tins) but also make emission-free deliveries by bicycle.

### Reusable cup rental system

- **Ch00ze Reuse** is a borrow-and-return cup programme that establishes a feasible, convenient, and user-friendly rental system for reusable cups in Hong Kong. Its app generates a personal Ch00ze ID that allows users to borrow coffee cups in 30+ partner outlets. Upon dropping a cup off, users can see their impact. The service is free to use with a return period of seven days.
- **MUUSE** is a data-driven rent-and-return system for food and drinks takeaways that is available in Hong Kong, Singapore, and Toronto. Customers borrow reusable Muuse containers that have a QR code to help track where the return bins are. Customers can return items within 30 days for free - the QR code is scanned upon return, completing the customer journey. The containers are then cleaned, washed, sanitised, and put back into circulation for reuse. Muuse’s customers include corporates, universities, and large-scale events and festivals.
- **Cup Solutions** offers a comprehensive rental and washing solution for reuse systems and events in Austria. The company has a stock of over two million cups available for rent, mostly made from styrene acrylonitrile resin (SAN). The **Mycoffeecup** initiative – a collaboration between Cup Solutions and the City of Vienna – provides a reusable cup solution for outlets serving takeaway coffee. Some outlets offer a small discount (on average EUR 0.20) on coffee ordered with the deposit cups.
- **Topsiring** is the first reusable cup rental system in Estonia. The company offers a wide variety of reusable plastic cups (from teacups to wine glasses) and plans to offer reusable plates, bowls, and cutlery shortly.
- **RECUP** is a German national share system for the collection, washing, and refilling of takeaway beverage cups. Consumers pay a EUR 1 deposit when they order their drink in a reusable cup, and the cups can be returned to any participating shop or restaurant where the deposit is then refunded.

## Bring Your Own Initiatives

- In Hong Kong, Starbucks offers a HK\$4 discount for each purchase for anyone who brings in their own reusable tumblers or mugs.

## Zero Waste Eateries

- Singaporean SaladStop with several outlets around Asia, including Hong Kong, applies many sustainable practices in its operations: it serves hot beverages without a lid; encourages customers to bring their own reusables by providing a 50-cent discount on beverages and a free standard topping; maintains a bag-sharing initiative to promote circularity; has an in-store waste sorting station; partners with barePack and Muuse to provide customers with reusable tableware for takeaway services.
- CUIB is in the process of becoming the first zero-waste-certified restaurant in Romania. As part of its waste prevention measures, CUIB offers free tap water to its customers, uses reusable tableware and cutlery, and reuses the boxes, jars, and glass bottles from the ingredients they buy as containers for takeaway or food delivery. Food deliveries are transported in cloth bags.
- Organic Krush Lifestyle Eatery with several branches all over the US made responsible environmental practices a priority in its business model since the restaurant's inception. The eatery relies on reusable bamboo dining ware and compostable to-go containers.

## Water Refill Station

- Belu is a UK-based water bottling system that replaces plastic bottles in restaurants, hotels, and other hospitality premises all over the country and overseas, including Hong Kong. Launched in 2007, the company is a social enterprise that invests its profits to end water poverty and reduce carbon emissions.
- In the UK the Bristol-based NGO Refill maps places where people can refill their water bottles and make the data easily accessible to the public. The NGO encourages shops, restaurants, and offices to refill drinking bottles with tap water free of charge. Those that do so are included in the Refill app and are given a "Refill-Station" sticker that they can proudly display.

# RECOMMENDATIONS

In response to the plastic waste crisis, restaurants, the general public, and the government should take a systematic and coordinated approach.

## RESTAURANTS

Since using only reusables for onsite dining in Hong Kong is a challenging target, restaurants can start partnering with reusables return companies such as foodpanda, Ch00ze Reuse, or Muuse.

If reusable tableware and utensils are out of reach at the moment due to budget concern, a good alternative to single-use items would be those made from naturally occurring materials or those that result from agricultural processes as a byproduct. For example, plates made with bamboo fibre, sugar cane fibre, fallen leaves, or bagasse; wheatgrass leaf plates; straws made completely from hay, pasta, seaweed, and more. Be cautious in purchasing products that carry the labels of “plant-based lining”, “poly-coated paper”, and “grease-resistant” as they might not be compostable and recyclable due to the harmful additives such as paraffin wax used for coating.

We strongly recommend avoiding bioplastics or products advertised as “green” or “planet-friendly” as it is easy to fall into the greenwashing trap. Don’t pass on the responsibility of plastic waste disposal – take it on yourself, build a pool of sustainable suppliers, and ask them a lot of questions to make sure they are in line with your sustainability values. For a deeper understanding of bioplastics, please read our research report, *When “Bio” Meets “Plastics”: a Case Study of Bioplastics and Their Impact in Hong Kong.*

With the ban on single-use plastic expected to come into effect soon, we recommend the start of gradual phase-out process by providing single-use utensils, straws, condiments, and other accessory items only upon request to minimise consumption rates at the source. Ultimately, these single-use items are still promoting a disposable mindset and should be minimised whenever possible.

It is better to incentivise customers to bring their own containers to refill free of charge instead of giving out containers made of glass or aluminum, which have a heavy environmental impact. Offer a discount to customers who bring their reusables to encourage them to return to your establishment (with their reusables!) time and time again. Avoid selling beverages in plastic bottles and when you cannot avoid selling drinks in glass bottles or aluminum cans, encourage recycling.

Regarding sustainable take-out services, we recommend using bamboo tableware instead of EPS tableware and edible cutlery instead of plastic cutlery. However, these products might be more expensive so encouraging customers to bring their own containers will result in a win-win situation. For easier implementation of your reusable return system, partner with a third-party company in your area that will supply, collect, and sanitise reusables for you. With reusable-return programmes, these companies often take on most of the responsibility.

Setting up a takeout library or a shelf with branded reusable products for sale will encourage customers to make sustainable choices while purchasing their meals and drinks. A takeout library can consist of thrifted or donated reusables, so customers can take an item and leave or return one for others to use. Meanwhile, having your own branded reusable item can market your brand as an environmentally-conscious business.

We recommend not selling prepackaged food items in plastic packaging. This includes any food sold or displayed that is pre-wrapped in plastic such as crisps, candy, sandwiches, or grab-and-go snacks. Instead, look for packaging that is sustainably made of renewable material or try setting up bulk bins for concessions with paper bags or reusable containers, all of which can be purchased at Hong Kong's zero-waste stores LiveZero, Slowood, and others.

## **CUSTOMERS**

The best way to reduce the amount of plastic waste entering the environment is to simply cut it off at the source and reduce the amount that is actually used in the first place. In general, reducing the use of single-use items, no matter the material, is even better for the environment than reusing or recycling them.

Consumers can choose to buy products without packaging, bring their own water bottles, refuse straws, use their own reusable shopping bags, and avoid single-use cutlery provided with takeaway meals - small everyday acts are effective in reducing the amount of plastic waste consumers are responsible for.

The way customers can contribute to the common goal of plastic reduction is to support the sustainable initiatives implemented by F&B outlets, such as Bring-Your-Own programmes, deposit return packaging initiatives, and water refill stations.

Taking responsibility for plastic consumption is recycling it. Look at packaging symbols to find out more about different types of plastics. Use the recycling locator to find out what plastics are recycled in your local area and deliver your recyclables there.

## **GOVERNMENT**

Firstly, since the Hong Kong government aims to reduce the per capita MSW disposal by 40-45% and increase the recovery rate to about 55% compared to the amount and rates in 2021, it should be more consistent and strategic with its measures.

Concerning the ban on single-use plastic, the government should think of regulating pre-packaged food and beverages and ultimately add them to the list of restricted items or create mechanisms that will encourage further innovation in the space or alternative packaging solutions.

Apart from advocating a plastic ban, it is important to allocate resources to promote a reusable deposit return scheme and encourage mass participation through a reward system. The government should work out a plan for efficient and cost-effective operations of the Reverse Vending Machines, as well as design an attractive and functional rebate system.



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## ABOUT US

GREEN Hospitality is a collaborative platform that encourages businesses to work together to bring about innovative, sustainable, cross-border advancements to the global hospitality industry. This is achieved through knowledge sharing, research, partnerships and incubation of solutions.

