



G.R.E.E.N. Hospitality

WHEN PART OF THE PROBLEM CAN BECOME THE SOLUTION:

RESPONSIBILITIES OF
THE HOSPITALITY
INDUSTRY IN THE MSW
CRISIS IN HONG KONG

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An aerial photograph of an airport tarmac under a clear blue sky with scattered clouds. In the foreground, a yellow ground support vehicle is on the left, and a blue platform scale is in the center. A jet bridge is connected to an aircraft on the left. In the background, two control towers are visible, along with other airport buildings and parked aircraft. The ground is marked with red and white lines.

Context Sheet - Solid Waste Management in Hong Kong & the Hospitality Industry, April 2020

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A very special thanks to Soap Cycling and Foundation for Shared Impact for their contributions to the report.

DEFINITIONS

Municipal Solid Waste or MSW (as defined by the Hong Kong EPD): Solid waste from households, commercial and industrial sources. This excludes construction waste, chemical waste, clinical waste and other special waste.

Commercial Waste: Waste arising from commercial activities taking place in shops, restaurants, hotels, offices, markets in private housing estates, etc. It is collected mainly by private waste collectors.

Tourism and Hospitality Industry: In official Hong Kong statistics, the "Tourism" industry encompasses the following sectors:

- Retail trade
- Accommodation services
- Food and beverage services
- Cross boundary passenger transport services (inbound and outbound tourism)
- Travel agencies and related activities

Food Waste and Food Loss: According to the UN Food and Agriculture Organisation (FAO), "*Food waste refers to the discard of foodstuff at the retail and consumption levels and is typical of lifestyles observed in high-income countries.*" and "*Food loss refers to the decrease in edible food mass at the early stages of the food chain such as production and postharvest handling. This occurs mostly in developing countries.*"

Circular Economy (CE): In opposition to the linear "take-make-use-dispose" approach, the Circular Economy takes a closed-loop approach to economy so as to make it restorative and regenerative by design, with the aim of reducing the use of virgin natural resources while still sustaining economic growth. The three main principles of the Circular Economy are Reduce, Reuse, Recycle¹.

Eco-tourism: According to the [UN World Tourism Association](#), this type of tourism is:

- **Nature-based:** the main motivation of the tourists is the observation and appreciation of nature as well as the traditional cultures prevailing in natural areas.
- Relatively **small scale:** this type of tourism tends to be, but not exclusively organised by specialised tour operators for small groups. Service provider partners at the destinations tend to be small, locally owned businesses.
- **Educational**
- **Minimises negative impacts** upon the natural and socio-cultural environment
- Supports the **maintenance of natural areas** which are used in ecotourism

INTRODUCTION

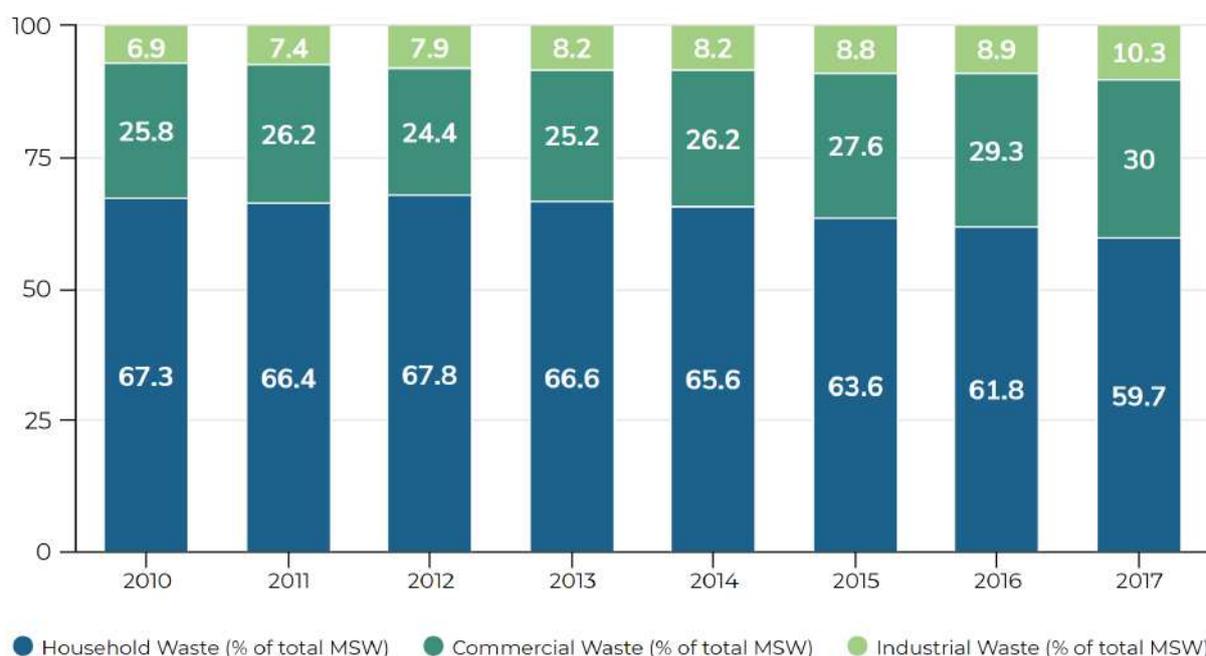
Due to the pervasiveness of the American culture in our global collective imagination, most of us are acquainted with the sentence “with great power comes great responsibility”. If we take as a definition of power the present and/or future ability to influence a given situation, the tourism and hospitality sector² in that sense has indeed economic power in Hong Kong as it was made a part of the very selective “**Four Key Industries**”, along with “Financial Services”, “Trading and Logistics”, and “Professional Services and Other Producer Services”. In 2018³, **the city attracted more than 65 million tourists**, with an increase of 11.4% compared with 2017. In August 2019, there were around 300 hotels in Hong Kong, providing 83,100 rooms, and about 17,000 restaurants. The sector accounted for **4.5% of Hong Kong’s total GDP**⁴, which is roughly the share of GDP produced by the agriculture, forestry and fishery sector in Brazil in 2018⁵.

While it is possible to estimate the participation of the Hong Kong tourism sector in GDP growth and job creation over a 10-year period, the last estimation of the volume of MSW originating from rooms and restaurants in the city dates back to... 2001⁶. What we know though is that the percentage of household waste in the total MSW production in Hong Kong has been steady during the last 10 years while waste generation from the commercial sector kept increasing, fueling the increase of MSW in Hong Kong. In 2017⁷, the Commercial sector, in which we find hotels and restaurants, generated **3,220 tonnes of waste per day**, accounting for **30% of the total MSW in Hong Kong**.





Figure 1: Source of MSW in Hong Kong (% of total MSW waste)



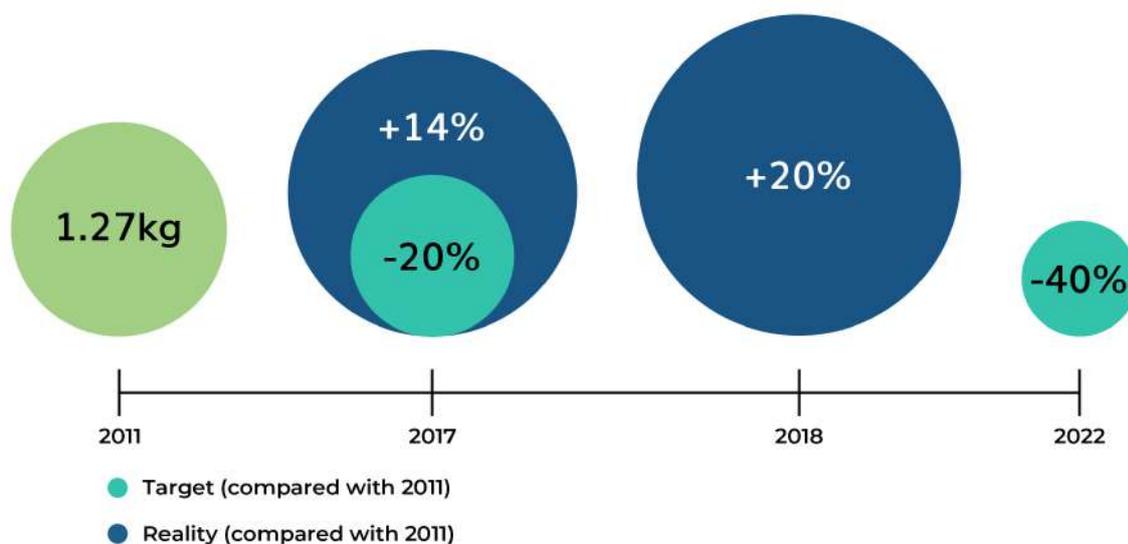
If participating up to 4.5% of the total GDP is enough for the tourism and hospitality industry to be part of the “Four Key Industries” in Hong Kong, why isn’t a participation of surely more than 4.5% of the MSW production enough for the industry to be acknowledged as a key actor on the waste issue?

With this report, we aim at exploring the waste crisis in Hong Kong: where it comes from and what is the current situation concerning the infrastructures and the main actors involved, including of course the place of the tourism and hospitality industry. This will help us explain why and in which way this particular industry has a special card to play to alleviate the garbage pressure on Hong Kong and how it could have a bigger impact than its share of the problem. Finally, we will explore the business possibilities brought by being in this special position so as to strengthen even more the industry’s role as an economic power in Hong Kong.

1 THE CRISIS BEGINS

In the **Hong Kong Blueprint for the Use of Sustainable Resource 2013-2022**⁸, the Secretary for the environment's preface is blunt and honest: "*Hong Kong's daily per capita domestic waste generation rate is high when compared to cities in Asia at stages of economic development similar to ours. [...] Hong Kong has fallen behind because we have only taken some of the steps. We need to urgently fill in the gaps.*" To do that, the Blueprint sets the ambitious target of reducing the MSW disposal rate on a per capita basis by 20% by 2017 compared with the 2011 volume, until reaching -40% (still compared with the 2011 volume) in 2022. Figure 2 below shows the evolution of the MSW disposal per day in reality compared with the target:

Figure 2: Evolution of MSW Disposal per day per person in Hong Kong: Government Target vs Reality



Source: Environmental Protection Department, 2013 and 2018

Instead of following the target, the amount of MSW kept increasing throughout the years. As we have seen in Figure 1 though, that evolution is mainly fueled by the increase in commercial waste, and this is why the responsibility should also fall on the actors of the industry, especially since Hong Kong is currently ill-equipped to deal with this amount of waste.

According to the World Bank, Hong Kong is part of the high income group, and, along with population increase, economic development is one of the factors that influence the MSW production⁹. The city also has several other characteristics: its high population density, its limited land space, its rapid development as a service-based economy and its historical political heritage as a British colony. All these factors shaped its waste management system.

A study made by Nele Fabian and Loretta Ieng Tak Lou¹⁰ shows how all these factors explain the historical development of the waste management system in Hong Kong.

In its recent history, Hong Kong's economic development, measured by its GDP, started to take off in the 70s, and so did MSW production. At the time, **the colonial government had adopted a pro-growth mindset and relied heavily on urban development and construction in order to keep the economy on this track.** This pro-growth mindset is embodied in a 1989 White Paper called "*Pollution in Hong Kong, a time to act*", in the sentence, "*The increased emphasis on improving the environment must not ignore the economy particularly where the introduction of the new legislation is concerned. For this reason extensive consultation will be needed with all those affected by environmental protection measures*". This hesitation to take strong measures to reduce commercial waste was mainly due to **the fear of losing competitiveness against the neighboring Guangdong province**, where labour and production costs were cheaper.



BECAUSE OF ITS LACK OF ECONOMIC ATTRACTIVENESS HONG KONG HAS VIRTUALLY NO LOCAL RECYCLING CAPACITY

All-in-all, this pro-growth mindset kept prevalence even after 1997. Even today, **almost no environmental laws affect business operations**, with the exception of the 2008 "[Product Eco-responsibility Ordinance](#)" and the introduction of a fee for plastic bags under the "[Producer Responsibility Schemes](#)". More generally, except from the legislation on Waste Electrical and Electronic Equipment, the tools rolled out by the government to tackle the waste problem consist mainly in communication campaigns and policies which mainly put the cost and the responsibilities on individuals. Two other policies include encouraging the public and businesses to recycle glass and plastic. However, because of its lack of economic attractiveness, the city has **virtually no local recycling capacity**¹¹, despite the government incentives to improve it.

In Hong Kong, [the recycling sector is not economically viable without government support](#), and this is why in 2015, the government launched a **Recycling Fund of HK\$1 billion** for the period 2015-2022 to help increase the quantity and quality of recyclables in the market and make it more economically sustainable. It was targeted at the recycling actors: help individual enterprises to upgrade and expand their local waste recycling business, but also support the industry as a whole through non-profit projects. However, at the time the fund was launched, [critics from within the industry](#) pointed at the fact that the lack of money was not the biggest problem for the industry, but rising rents, a lack of land, a shrinking labour market and the "*falling prices of plastic as a result of an economic slowdown and declining oil prices [which] had caused frontline recyclers to stop collecting the material*". Today, the same problem arises with the [market scramble that followed China's ban](#) on recyclable material imports, even if the Fund now provides support for companies' rents as well.

When it comes to communication, even if it is crucial to educate the users, the campaigns alone usually fail to engage the public as users become **passive receivers**¹². According to a report by UN-HABITAT on building and effective waste management systems¹³, **efficient communication goes both ways**, through feedback systems for example. These systems can include “*telephone lines for complaints, continuous community monitoring of satisfaction and payment rates, and creating collaborative relationships between inspectors and the community*”.

Regarding policies, they cannot stand alone either and should be coherent with the situation the city is facing. For example, the upcoming **municipal solid waste charging scheme** planned by the government has been successful in South Korea and Taiwan. But if we look more closely at the South Korean case, we see that the introduction of the **Volume-based Waste Fee (VBWF)** in 1995 was partly to reduce waste, but also to **encourage recycling**, as people are not charged an additional fee for disposing recyclable materials in designated recycling bins. Also, this particular policy followed a series of measures, namely the “waste separation & collection system” in 1991 and the waste deposit and refund system in 1993. The latter imposed **deposit fees on producers** for waste items that they could get back once the product was recycled. As the system still lacked effectiveness, the Korean government improved it and implemented an **Extended Producer Responsibility Scheme (EPR)** in 2000 that **strengthened producer responsibility from the production stage up to collection and recycling**.

Table 1: Roles of each entity within the EPR scheme in South Korea

Entity	Roles
 Consumer	Thoroughly separate and discharge recycling resources
 Producer (Recycler)	Faithfully fulfill the responsibility for recycling individually or by joining a PRO(Producer Responsibility Organization) Operate separate recycling marking system for packaging materials to ensure separate discharge at source
 Local Governmnet	Separate collection of target items of EPR
 Korea Environment Corporation	Accept and approve the sales & import records and the responsibility fulfillment plan of producers Accept the fulfillment report and verify/inspect performance Manage administration and oversight related to EPR operation, including recycling charges
 Ministry of Environment	Operate the overall EPR Program, and enact and revise laws, regulations and guidelines. Calculate and announce the recycling target rates for each item

Source: Korea Environment Corporation

In the following years, they also turned the concept of “waste” into “resource” and implemented the concepts of the **4R (Reduce, Reuse, Recycle and - energy - Recovery)** directly in their policies driving waste management. Policies to reduce waste generation at the source include **restrictions on the use of disposable items and restriction on excessive packaging**. South Korea has also a [very effective composting system](#) to reduce its food waste. As illustrated in Table 1 above, all the actors are involved in reducing and recycling waste and the producer becomes “the recycler”. The future MSW charging scheme in Hong Kong targets only individuals, with no apparent incentive to recycle, and with the expectation that individuals will waste less without constraining the producers to reduce their packaging or use as much recyclable material as they can when designing their product (a practice also called “[human-centered design](#)”).

Other than the policies that can be implemented by the government, something as fundamental as the whole **structure of Hong Kong’s economy** also explains its MSW management system, and **especially its lack of recycling capability**. In 2018, the service sector accounted for 93.1% of the GDP¹⁴. This lack of manufacturing industry means that there are **low economic incentives for the local government and businesses to develop a sustainable recycling industry** as there is no local market for low-value recycled materials like plastic, glass, or food waste, while the high-value materials can simply be exported and sold. Because of this **lack of recycling capacity**, the 2018 Chinese import ban on waste forced Hong Kong to stop exporting its plastic, and part of it just went to landfill instead¹⁵. As such, in 2018, **about 30% of the MSW in Hong Kong was recycled**¹⁶, among which **90% was exported**¹⁷.



HONG KONG RELIES ON 3 SANITARY LANDFILLS THAT WERE DEEMED TO BE FULL IN 2015, 2017 AND 2019

Hong Kong also falls short on the infrastructure side to treat all the waste its population produces, especially since it cannot send its recyclable waste to the Mainland anymore. Today, the city relies on **three sanitary landfills that were deemed to be full in 2015, 2017 and 2019**¹⁸, but whose life expectancy was extended until the end of the 2020s. [An incinerator](#) is also under construction: it should be completed by 2024 and should be able to process 3,000 tonnes of waste per day. To give a reference, in 2018, about 6,755 tonnes of MSW per day were inflammable. Similarly, [phase 1 of the Organic Waste Treatment Facilities](#), planned in the “*Food Waste & Yard Waste Plan For Hong Kong 2014-2022*”¹⁹, has been completed in 2018, and four to five others should follow. These resource recovery centers should eventually be able to process up to 50%²⁰ of Hong Kong’s food waste, but no fixed date is given for the completion of the project. The second plant was planned to be operational in 2018²¹ but should now be ready only [in 2022](#).

In other words, the waste situation in Hong Kong today is critical and the government seems to set its focus only on people's behavior when it should also exploit the potential of one of its key industries: the hospitality industry.



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2 THE HOSPITALITY INDUSTRY HONG KONG NEEDS

The hospitality and tourism industry take a specific shape in Hong Kong, but it can do a lot when it comes to democratizing and using the 3Rs (Reduce, Recycle, Reuse) so as to reduce its MSW production and change the habits of its guests.

Indeed, the tourism industry in the city emerged as a replacement for the disappearance of the manufacturing sector. With the rapid rise of a wealthy middle-class in Mainland China in the last decades, Hong Kong rapidly attracted Mainland tourists willing to buy luxury goods at cheaper price thanks to its advantageous tax system. In 2018, **78% of tourists** came from Mainland China. Each overnight Mainland visitor spent HK\$7,029, while each same-day visitor spent HK\$2,410²², about three times the amount spent by a non-Mainland visitor. As a consequence, and even if the city tries to diversify its tourism type (see section 3 of the report), Hong Kong tourists are predominantly urban, with about 55%²³ of its tourists staying less than 24 hours (same-day arrivals), being predominantly to do shopping. This short-term urban-type tourism means that the flow of tourists doesn't depend on the preservation of the environment like with other popular destinations such as Thailand or the Philippines for example.

**IN 2018,
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Another specificity of Hong Kong's urban profile is the **eating habits of the population**. The city's busy lifestyle, which encourages the search for convenience is combined with the continuous rise in rents, forcing restaurants to shrink, leading to a **tremendous rise in take-away habits** and home-delivery services. The latter witnessed continuous growth since the first half of 2010s, when the first delivery apps started to take the Hong Kong market by storm. The recent coronavirus crisis only strengthened this trend, with some delivery services recording a **60% increase in order volume compared to last year**.

Given the state of the solid waste management system in Hong Kong, its proximity to the sea and the population's current habits, we can say that **the city is a fragile environment too when it comes to waste**.

Unfortunately, there is **no centralized data collection or recent detailed study about the waste generated specifically by the hospitality industry in Hong Kong**, so it is hard to analyse with precision where efforts should be made in priority and which impact the sector's waste has on the city. Given that assessing the situation is the first step in building an efficient waste management system, this fact tells a lot about what is left to be done.



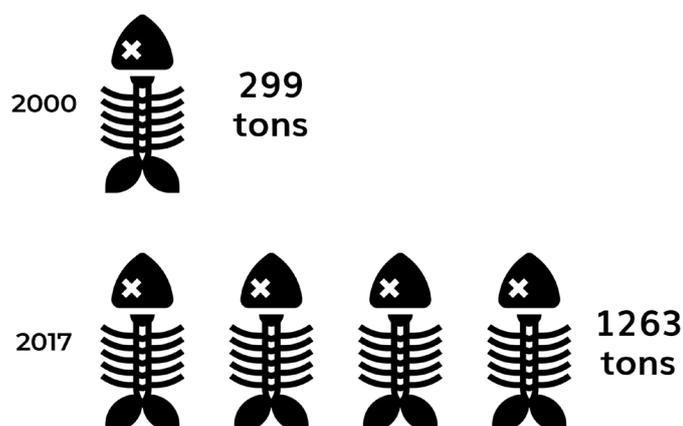
THERE IS NO CENTRALIZED DATA COLLECTION OR RECENT DETAILED STUDY ABOUT THE WASTE GENERATED SPECIFICALLY BY THE HOSPITALITY INDUSTRY IN HONG KONG

According to the literature review of a study conducted in 2014²⁴, the bulk of solid waste in hotels are generally mainly organic waste (food waste), paper, plastic, glass and metal. Given their importance, each type of waste will be the topic of future dedicated G.R.E.E.N. Hospitality reports, with further analyses and recommendations. For this report, we will have a brief overview of each of them to see how, through **acting on each of these types of waste, the hospitality industry can have much more impact than just saving landfill space.**

Food Waste, Food Distribution Gap and the Future of Hong Kong's Waste Management System

Food waste is the most pressing issue in the hospitality industry. In Hong Kong, the government started to tackle it in 2012, with the establishment of the [Food Wise Hong Kong Steering Committee](#), an initiative to reduce food waste at both individual and commercial levels. Despite the communication campaign, the volume of food waste at commercial level (which includes hotels and restaurants' solid waste) still quadrupled between 2000 and 2017:

Figure 3: Volume of Putrescible Waste* in Commercial Waste (tons per day)



Source: The Hong Kong Environmental Protection Department

Here we use the putrescible waste produced by the commercial sector as a proxy to food waste generated by hotels and restaurants because there are no statistics that measure exactly by how much the hospitality industry participates to the 3,600 tonnes of food waste produced every day in Hong Kong.

However, we know that, out of these 3,600 tonnes per day, only 74 tonnes were locally "recycled" in 2018²⁵, which represents only **2% of the total municipal food waste produced.**

*As putrescible waste is almost only composed of food waste for commercial waste, in this graph we take putrescible waste as an approximation for food waste.

Compared with countries like South Korea²⁶, the city still has a long way to go, and this is precisely where the hospitality industry can have its biggest impact. A specialized UK non-for-profit firm called **WRAP** (Waste & Resources Action Programme) developed an assessment tool called “**Waste Mapping**” so as to help businesses see where the “waste hotspots” are.

This tool mainly focuses on:



1) Measuring food waste



2) Tracking where it comes from: Is it food wasted by the guests, spoiled, expired?



3) Setting goals



4) Taking action by including all the stakeholders (staff, guests and suppliers)

The goal here is to reduce food waste generation so as to send less into landfills. This kind of “Zero Waste” approach has been adopted by a Hong Kong restaurant chain, **MANA!**. In other parts of the world, restaurants take other **creative measures** to reduce someone else’s food waste, like in Finland for example²⁷, where raw ingredients come from supermarkets that would have otherwise discarded them, or in the UK, with models of “pre-industrial restaurants” like **SIL0**. Even if reducing food waste is a first step, the hospitality industry should also explore all the other steps of the food equivalent of the “Hierarchy of Waste” pyramid (see figure 4).

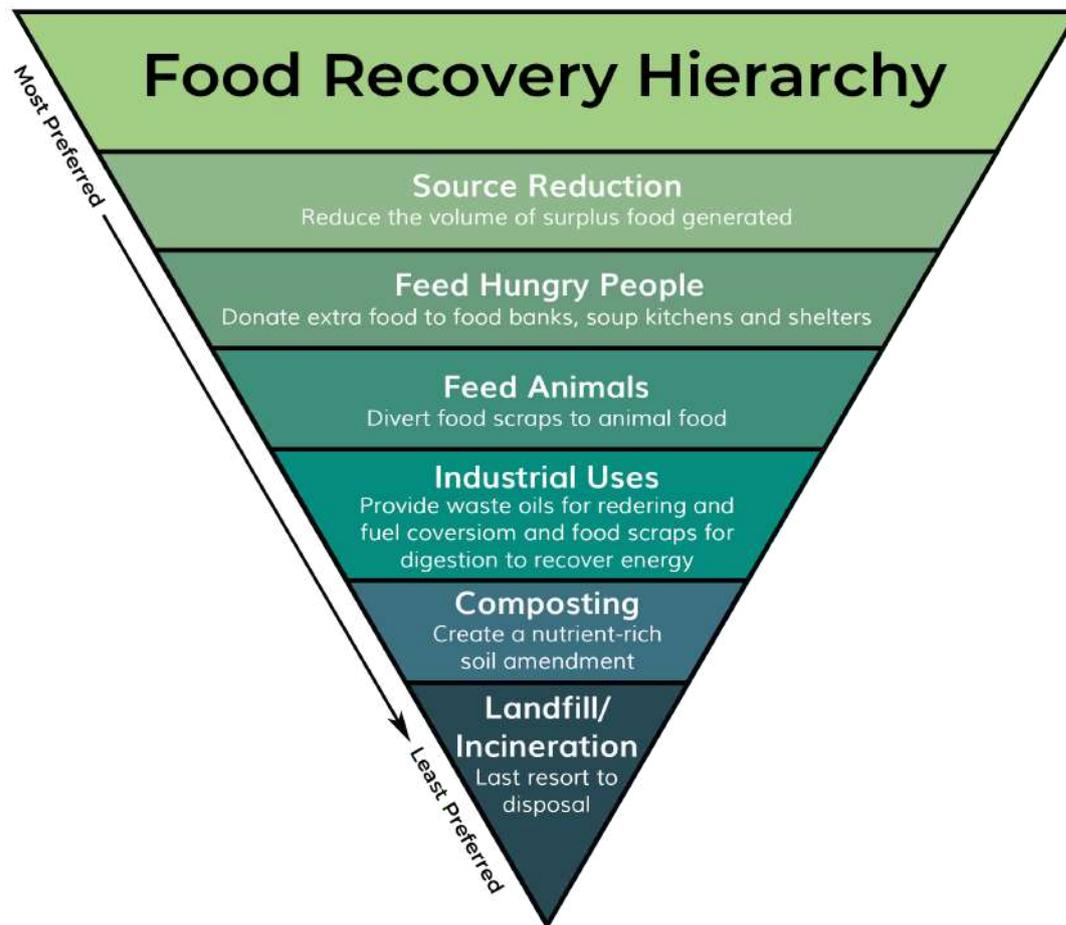
The first step after “source reduction” is to **partner with local NGOs** who will redistribute the edible surplus food that can be salvaged to feed underprivileged populations in Hong Kong. This can have a strong impact on the local community and really make a difference. Indeed, according to an article from the South China Morning Post²⁸, “*The number of poor people in Hong Kong reached a 10-year high, at **about 1.41 million in 2018, accounting for 20.4 percent of the total population.** [...] That means more than one in five people lived below the city’s poverty line²⁹”.* A single NGO such as Feeding Hong Kong can provide up to 100,000 meals per month³⁰.



IN 2018, THE NUMBER OF POOR PEOPLE IN HONG KONG REACHED A 10-YEAR HIGH, AT ABOUT 1.41 MILLION, ACCOUNTING FOR 20.4% OF THE TOTAL POPULATION

When it comes to **composting**, one can see how it could be challenging in an urban environment without adequate public infrastructures like in Hong Kong. However, in South Korea³¹ for example, so-called “**urban farms**” on the roofs and in the basements are developed to make use of the compost and grow vegetables and mushrooms. These kinds of initiatives are **also budding in Hong Kong**, at individual but also **at company level**, and compost is even **used by some chefs** to locally grow their own vegetables.

Figure 4: The Food Waste Recovery Hierarchy



Source: The United States Environmental Protection Agency

Such practices become particularly relevant in a place where there is no local agriculture sector to fuel the need for compost or animal feed.

High content of organic waste (or “wet” waste) also **reduces the calorific value of the feedstock**, meaning that more energy is needed to burn it. In Hong Kong, 34.3% of total MSW is organic waste and there is no territory-wide segregation system to remove food waste from the rest. This could make the future incinerator less efficient.

Also, in the case of a “single stream” collection system (i.e. when everything goes into the same bin), food waste contaminates the recyclable material, making it unrecyclable. The same goes the other way: other materials like plastics for example shouldn't be sent to a composting facility as it can contaminate the compost and release toxic materials that can potentially enter the food chain³².

As a consequence, if Hong Kong wants to divert its waste from landfills and develop recycling, incineration and composting facilities, **proper management of food waste is a prerequisite**.

Plastic Waste, Marine Life and Circular Economy

Acting on reducing plastic waste could as well put the hospitality industry in the position of offering a solution to a much bigger problem than managing waste with full landfills. Plastic is a huge problem in the East Asia and Pacific region. In 2018 in Hong Kong, **2,124 tonnes of plastic were discarded every day**. Even if the landfill system in Hong Kong is a controlled environment, the region is often struck by heavy rains or typhoons which delivers mismanaged plastic waste into the sea, which partly explains why **Hong Kong waters are polluted by the city's own plastic**³³. This was particularly visible in 2018, after the Mangkhut typhoon, which submerged the streets with [a sea of styrofoam](#).

As a consequence, the only way to reduce the problem in Hong Kong is to **stop its dependence on plastics**. For the hospitality industry, plastics is often synonymous with convenience. In hotels, guests expect single-use plastic amenities to be provided. In restaurants, the surge of delivery services has had a serious environmental cost in terms of single-use plastic utensils that are handed out every day, sometimes [regardless of whether the order is a take-away or a dine-in](#). A 2017 [Greenpeace study](#) found that the city's 240 McDonald's alone were giving away about **490,000 plastic items per day**. Given the Hongkongers' habits, one should also take into account the amount of plastic produced by food delivery apps like Deliveroo, foodpanda or UberEats. Unfortunately, these companies **don't disclose the amount of plastic they deliver every day**. What we know though is that their coverage is huge: Deliveroo alone partners up with **more than 3,500 restaurants**.



**IN 2017, HONG KONG'S 240
MCDONALD'S RESTAURANTS ALONE GAVE AWAY
490,000 PLASTIC ITEMS PER DAY**

However, some **hotels in the city have already taken a step to remove plastics from their rooms without having to trade it for their guests' convenience**. The examples in the region within the industry are numerous. Some top-down approaches include the recent bans in Shanghai, where restaurants, shops, and hotels are now forbidden from offering free disposable items to customers on their own initiative³⁴. This is part of a more ambitious plan launched by the Chinese government to tackle the issue of MSW. Several international hotel chains **also started to address the problem by progressively banning single-use plastics**, just like the Mandarin Oriental Hotel Group, Marriott, and InterContinental Hotels. Their actions include for example the replacement of individual shampoo and shower gel bottles with big dispensers, the removal of straws or plastic stirrers, or the replacement of single-use plastic amenities like toothbrushes or combs with more sustainable alternatives. On the food service industry's side, in March 2020, the two main food delivery companies (Deliveroo and foodpanda) teamed up with WWF and pledged to [remove all unsustainable packaging from their operations](#) over the next five years, partly driven by customers' pressure.



However, the industry could go way further into sustainability practices and this is why in recent years, a popular term for another type of tourism emerged: **Circular Tourism**³⁵. The concept, described in a report from the Centre for Regional and Tourism Research in Denmark, is based on the principles of the **Circular Economy (CE)**³⁶, which promotes a whole different mindset when it comes to production and consumption, not only stopping the use of plastic. In the report, several practical examples are given to explore how hotels have successfully applied the principles of “reuse” and “reduce”³⁷, like by buying or leasing products that have been specifically designed for durability and/or sustainability (with less packaging for example), providing reusable products to guests during their stay (water bottles, shopping bags etc.), or by selecting providers that commit to the principles of circularity in their operations. For hotels, not only a Circular Economy approach can reduce their **energy and water consumption**, it can also become a real experience for guests and become a **market opportunity**³⁸.

Dry Waste, Recycling and Drivers for Change in Policies

Another solution for hotels to reduce the amount of plastic and other “dry” waste like paper, glass and metal that they send to landfills is to **set up a recycling system**. As we have seen, in Hong Kong, the recycling system is limited and most of the recyclable material is sent away, and **this is precisely the chance for the industry to create a real change**.

It has already been the case for glass containers, for which **the hospitality industry helped improve the city’s recycling system and facilities, and participated in raising awareness on the issue**. The **Glass Container Recycling program** - adopted by 48 out of 300 hotels in Hong Kong - was launched in 2008 in partnership with the Hong Kong Hotels Association. It was on a voluntary basis and originally funded by the participating hotels. The recycled glass was then either turned into eco-pavers and eco-cement for construction work, or exported for recycling. Through the years, the program went on, **evolved** and, in 2018, the **Legislative Council Panel on Environmental Affairs** stated

that the " PRS [Producer Responsibility Scheme] [...] **may be extended in future to cover other types of product containers**". Also, by choosing recycled material, the actors within the hospitality industry can help create the market need that is crucially missing³⁹ for the development of a sustainable local recycling industry in Hong Kong.

These actions prove that **actors within the hospitality industry should take a stance when it comes to pushing forward sustainable practices that can be further expanded to include other participants in the community**. Indeed, when it comes to green policies, most schemes launched and/or supported by the government are on a voluntary basis and are either pushed by public pressure or businesses' actions. This is the case for the segregation of food waste at the household level⁴⁰, for the [removal of microbeads in cosmetics](#) or the [recycling of plastic bottles](#) for example. The government often takes a very prudent approach when it comes to imposing practices onto individuals or companies, and this is why the hospitality industry should take the first step in order to **influence policies and regulations**. According to Arafat and Pirani⁴¹, these changes in policies, coupled with proper enforcement and monitoring, **are considered to be the most effective ways to bring about measurable change throughout an entire country**.

Table 2: Summary of Section 2

	Food Waste	Plastic Waste	Other "Dry" Waste (paper, glass, metal)
Actions to reduce the type of waste 	<ul style="list-style-type: none"> • Source reduction • Partner up with local NGOs • Composting • Recycle food from other sectors (supermarkets) 	<ul style="list-style-type: none"> • Reduce • Reuse • Buy smart • Adopt a Circular Economy mindset 	<ul style="list-style-type: none"> • Reduce • Reuse • Set up a recycling system
Positive effects 	<ul style="list-style-type: none"> • Reduce inequalities in Hong Kong • Reduce the negative effects on other waste streams (incineration, composting and recycling) 	<ul style="list-style-type: none"> • Improve the marine plastic pollution problem around Hong Kong • Raise awareness about the Circular Economy to international guests and locals 	<ul style="list-style-type: none"> • Lead the way for a change in policies on recycling • Impulse systemic change

This table summarizes the actions and positive effects that the hospitality industry can have on Hong Kong society, environment and businesses through waste reduction.

3 SUSTAINABILITY IS WORTH THE FIGHT

As we have seen through the previous section, the hospitality industry has an important role to play when it comes to improving the waste situation, inequalities and environmental pollution. More than that, these measures listed above also constitute economical opportunities for the sector and can be turned into a competitive advantage for the hotels that implement them.

The first advantage of adopting an eco-friendly or circular approach in hotel and restaurant operations is to attract **a different type of guests looking for a different type of experience**. As we have seen above, Hong Kong attracts mainly urban, short-term tourists. However, conscious of the risk of only focusing on one source of revenue, the city's Tourism Board has been trying to **diversify the geographical source of tourists**, encourage them to come back, and lengthen their stays by putting an emphasis on the city's tourist attractions⁴². Although the government doesn't cite it as an implementation goal to support that strategy⁴³, this can be achieved through **green (or eco) tourism**.

Eco-tourism is gaining momentum because, as tourists become more aware of the environmental impacts of their travel, they tend to re-evaluate their consumption choices. [The Booking.com 2019 Sustainable Travel Report](#) shows that "almost all travelers believe that people make sustainable travel for future generations." The first way to act for the protection of accommodation are growing in popularity, **most three quarters (72%) of people need to act now and make choices to save the planet**. The first way to act for the protection of accommodation are growing in popularity, **ters (73%) of global stay at least once in an accommodation when looking is the fourth consecutive year seen this figure trend up, from 62% in 2016 to 65% in 2017, and 68% in 2018."**

40% OF HONG KONG TERRITORY ARE COUNTRY PARKS AND SPECIAL AREAS

For that matter, **the Hong Kong territory counts 24 country parks and 22 special areas totalling 44 312 hectares, or 40% of its land mass**, when the city only covers less than 25%⁴⁴. Companies within the hospitality industry could then attract a different kind of traveller, more environmentally-conscious.

More generally, as the generations follow one another, a [study by McKinsey & Company](#) shows that population belonging to the Generation Z (born 1995 - 2010) have distinctive expectations when it comes to their relationships with brands. They summarize the implications for companies in three points: "*consumption as **access rather than possession**, consumption as an **expression of individual identity**, and consumption as a **matter of ethical concern**."* As sustainability is becoming the norm, basic sustainable practices are more and more becoming a way to barely maintain competitiveness and maintain brand loyalty, **while innovation in sustainability** is now what it takes to gain competitive advantage⁴⁵.



WHEN IT COMES TO CHOOSING GREEN PRODUCTS OR GREEN SERVICES, MORE AND MORE CUSTOMERS ARE NOW READY TO PAY THE DIFFERENCE

Through eco-tourism, innovation in guests' experiences and increased guest loyalty, sustainability is then **a whole market to develop and explore** for both small and bigger companies working within the hospitality industry in Hong Kong. Actually, given the recent events and the downturn in tourist arrivals in the city, the government is trying to boost this sector for locals through [a US\\$7 million scheme](#). However, it is partly criticized for the lack of planning when it comes to the environmental impacts of such an increase in visits. This is why, just like recycling, the development of such projects should be **carefully planned and go hand in hand with coherent government support**.

Also, when it comes to choosing green products or green services, hotels and restaurants won't necessarily have to bear the price difference, as more and more customers are now **ready to pay the difference**, and even sacrifice in terms of convenience, quality, or in the level of luxury offered by a hotel⁴⁶.

More than rejuvenating and diversifying the industry, proper waste management can also allow businesses to **save money**, especially with **food waste**. A coalition to reduce food waste named [Champions 12.3](#)⁴⁷ extensively studied the question. Through reports, partnerships with research institutions and field work, they built **a strong business case for the reduction of food waste for hotels and restaurants**. Additional savings can be achieved by using composted food waste as fertilizer in hotels with gardens or golf courses. Some hotels in the region even **sell their processed food waste** as biogas or animal feed⁴⁸.



HONG KONG

FRUITICO
Flavoured by Nature

NEW ZEALAND
ROBIT

Robit
TREATS OF AUSTRALIA

永恆果品

100% POLYPROPYLENE

CELERY
Sun
Soy
1.5L

GREEN PEAS
1.5L

CONCLUSION

The tourism and hospitality industries in Hong Kong constitute an important part of the problem when it comes to solid waste generation, especially for specific types of waste like food waste and plastic waste. These types of waste have more impact than “just” filling landfills: they also contribute to environmental pollution, deepen inequalities and, if not managed properly, accelerate climate change.

However, today, there is **no structural assessment of the impact of the different industries on Hong Kong’s waste problem**, and it’s only getting worse. In governmental statistics, MSW is sorted by composition (wet and different types of dry waste) and was until 2017 separated by the three sources that compose MSW (household waste, commercial waste, industrial waste). When looking at the 2018 waste statistics published by the government, MSW has only two sources left: “household waste” and “commercial and industrial waste”. This is a **loss in information** that blurs the impact of the commercial sector in the solid waste management problem in Hong Kong.

Also, the policy line of the EPD is mainly aimed at changing individuals’ behavior. However, as successful waste management systems show, **all the actors should be included and should feel responsible when it comes to reducing, reusing and recycling waste**. This is why the EPD should coordinate its efforts with all the industries to encourage them for example to buy recycled products, thus supporting the local recy-



cling sector. Also cooperation should be improved between government agencies. Each industry in Hong Kong possesses its own government agency (Tourism Board, Building Department, Trade and Industry Department etc.) but none of them provides sufficient data or relevant information on environmental issues that are specific to their sector. As Fabian and Lou put it, when it comes to waste management today in Hong Kong, *"the existing structures of the civil services do not give departments any incentives to work with each other"*⁴⁹.

Finally, it will be impossible for Hong Kong to process its volume of waste generated with its current and even planned infrastructures if nothing is done to reduce it. **The city has a structural waste management problem**, and it is not new. From the 1840s until late 1960s, when Britain was already equipped with the kind of waste technologies that were 'prerequisite to the emergence of the *"throwaway society"*', the city was still dumping construction but also household waste in the sea to reclaim land⁵⁰. As we have seen, today the city relies on **three landfills that are full and one composting site that can only process 5% of its current organic waste production**, without any mandatory organic waste segregation system. In its *"Food Waste & Yard Waste Plan For Hong Kong 2014-2022"*⁵¹, the government plans to implement the Municipal Waste Charging Scheme before making food waste segregation mandatory, which shows a certain incoherence in the policy incentives intended.

If there is no delay, the earliest the city can get a large-scale solution for its waste problem will be **2024**. If Hong Kong wants to **get out of this crisis now**, a strong political will is needed to drastically develop relevant infrastructures (especially on the segregation of food waste and recycling capacity), roll out coherent and coordinated policies, change mindsets but also consumption habits, as the easiest waste to dispose of is the one that is not produced. For Hong Kong to resolve its waste crisis, we need the tourism and hospitality sectors to recognise their power and duty to make this happen.



USEFUL RESOURCES

Food waste:

- List of charities in Hong Kong where companies can donate food: <https://www.foodwisehk.gov.hk/en/channels-for-food-donation.php>
- O-Park 1 (Waste-to-Energy plant) list of food waste collectors: https://www.opark.gov.hk/media/List_of_Potential_Food_Waste_Collectors_20_01_16.pdf
- Hong Kong Community Composting: <https://www.hkcomposting.com/>
- WRAP's "Waste Mapping Guide" to reduce food waste: https://www.wrap.org.uk/sites/files/wrap/WRAP_Waste_Mapping_Guide.pdf
- Champions 12.3 "Business Case for reducing food loss and waste": <https://champions123.org/the-business-case-for-reducing-food-loss-and-waste/>

Recycling:

- Search engine for recycling facilities in Hong Kong based on waste type: https://www.wastereduction.gov.hk/en/quickaccess/vicinity.htm?collection_type=collector&material_type=electrical_appliances&district_id=1&view=Go
- Make a pledge to the "Drink without waste" movement to encourage plastic bottles recycling and water refill stations: <https://drinkwithoutwaste.org/pledge-to-drink-without-waste/>

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ACKNOWLEDGEMENTS

This project is supported by the HKU Knowledge Exchange Fund granted by the University Grants Committee



THE UNIVERSITY OF HONG KONG
Faculty of Business and Economics

The Faculty of Business and Economics at The University of Hong Kong has contributed to this report through the involvement of student interns, researchers and instructors of its Social Venture Management (SVM) Course.



Soap Cycling, a Hong Kong based charity, works with students, hotels, corporates, volunteers and WASH charities across Asia to recycle soap in a movement to reduce preventable hygiene-related diseases and suffering by distributing this life-saving resource to where it is needed the most. Soap Cycling is part of the Foundation for Shared Impact (FSI) portfolio and hosts students from the University of Hong Kong through its Social Venture Management (SVM) Course.



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