



G.R.E.E.N. Hospitality

G.R.E.E.N. HOSPITALITY TOOLKIT

**A FOOD WASTE
REDUCTION GUIDE AND
TOOL PACK FOR THE
HOSPITALITY INDUSTRY**



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COMBATING FOOD WASTE IN A “GOURMET PARADISE”

Reducing and properly disposing food waste is a critical first step to an effective and efficient waste management system. The wasteful mentalities and practices that are currently integrated in our lifestyle and culture have existed for least a decade. Changing customer behaviour may seem like a distant reality, but hospitality businesses can become the leaders that will bring about that change.

“Of the 11,428 tonnes of municipal solid waste landfilled each day in 2018, 31% was food waste, 24% waste paper and 21% plastic waste.” —
Environmental Protection Department (2018)

With so much of Hong Kong’s tourism economy and international reputation based on local food culture, the hospitality industry has great potential to lead the change by including environmental considerations in their business operations. To create real change, we must first reflect on our current systems, its flaws and assess potential for improvement. In this G.R.E.E.N. Hospitality food waste toolkit, we provide hospitality businesses with relevant resources and methodologies to quantify, reduce, rescue and recycle food waste.



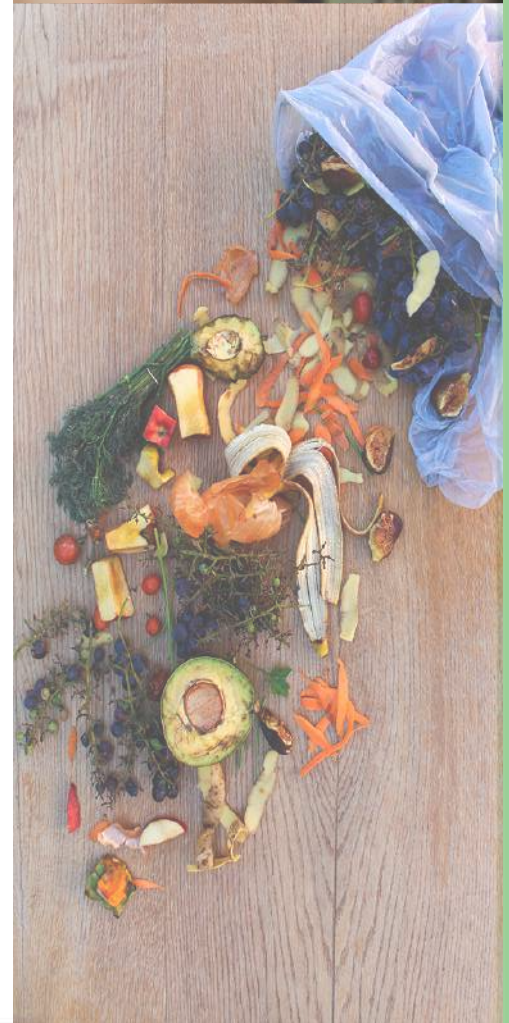
1 | Quantify

To properly estimate the amount of food waste produced in your food supply chain is to understand the extent of the food waste problem and to assess its impact on the environment and your business costs. Food waste can be quantified by keeping bin logs and waste diaries on a regular basis. Which quantification method you use depends on the resources you have. According to the Food Loss and Waste (FLW) Protocol [Guidance on FLW Quantification Method](#), there are at least 10 ways to quantify your food waste:

1. Direct Weighing
2. Counting
3. Assessing Volume
4. Waste Composition Analysis
5. Records
6. Diaries
7. Surveys
8. Mass Balance
9. Modelling
10. Proxy Data

FLW also provides various tools like the [Food Quantification Method Ranking Tool](#) to find the right quantification method for your business.

- [FLW Value Calculator](#) allows hospitality businesses to monitor food waste on a larger scale across the entire food supply chain, though the quantification method to obtain such data is entirely up to you.
 - [Guide on how to use the FLW Protocol Value Calculator](#)
 - [FLW Definition of terms and applications](#) (P.16)
- Use the [FRESH equation](#) to monitor food service rating for one-off hospitality events.
- [FoodWise Hong Kong Campaign](#) has also provided general guidelines on food waste measurement for hospitality businesses ([for hotels](#) and [for F&Bs](#))
- The Environmental Protection Agency's [Food waste management cost calculator](#) also allows hospitality businesses to calculate the costs of their current food waste management system to assess its flaws and make adjustments.



Another option is to collaborate with waste management consultants like:

- [Directory of Environmental Consultants](#) in Hong Kong
- Other organisations that specifically provide food waste consulting services include [PerfectGreen](#) and [FoodMadeGood](#)
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To further diminish the food waste at sources, there is also technology (although more pricey) to consider such as [Winnow Solutions](#) - an AI powered tech that recognises and weights food thrown into a bin and based on data advises steps to cut waste.

2 | Reduce

Utilising measurements and the collected data, hospitality businesses can then formulate food waste reduction plans, targets and goals. In order to prevent wasting food, we must consider which parts of food waste are **completely inedible, under utilised and edible**. Some parts of food we consider food waste may still be adequate for consumption and can be used as additional ingredients and seasoning incorporated in your dishes. Thus, a thorough analysis is needed to assess the hygienic and edibility of certain foods. Some tools like the [Produce Yield Ranking Tool](#) allows simple and efficient classification of foods based on its versatility to be repurposed. This requires a close collaboration with chefs to fully optimise food resources in their menus.

Reducing food waste on a systemic level is a team effort. Providing staff training and education to minimise food waste is also an important step to integrating and executing sustainability initiatives in your food waste management system. A great resource to take note of is the [Staff Training video series by HotelKitchen](#), an online course that focuses on staff training across all stages, including food waste measurement, food preparation and post-service food management. Though plate waste cannot be completely avoided, restaurants and hotels can adopt practices in their serving methods, plate size and food quantities to encourage a non-wasteful mentality in customers.

There are many cost efficient and easy methods that have facilitated restaurants and hotels to minimise plate waste. Some key aspects to consider when incorporating food waste reduction practices are:

1. Menu Design
2. Serving Method
3. Portion Choices
4. Plate size
5. Customisability of menu

Learn more about each aspect in detail by reading [Rethink Food Waste's Restaurant Food Waste Action Guide 2018](#). A collection of [successful case studies created by WRAP](#) may also provide inspiration for food waste reduction in the hospitality sector.





3 | Rescue

Food rescue is the most effective way to utilise remaining food waste that is produced after adopting food waste reduction practices. Hospitality businesses should proactively assess their potential for food rescue in the food supply chain primarily from agriculture to distribution. Be mindful of date labels on food, a food item past its date label does not mean it's completely inedible. This is why it's important to form close partnerships with food rescue organisations when considering food donation to discuss and understand how the organisation will recondition it for consumption if possible. There are a variety of food rescue organisations in Hong Kong for businesses that are committed to alleviating poverty through food rescue:

- [Food Angel](#)
- [Feeding Hong Kong](#)
- [Foodlink](#)
- [St. James Settlement People's Food Bank](#)
- [Food for Good](#)
- [Greeners Action](#)
- [YWAM](#)
- [JLife Foundation](#)
- [Conservancy Center - Food Sharing Scheme](#)
- [Food Grace](#)

Many businesses may have food security concerns for donating leftovers. In such cases, businesses should actively assess current practices of food processing methods that enable safe food donation. Hong Kong has its own [food donation guidelines and policies](#) that should be taken into consideration. The [Hong Kong Center for Food Safety](#) has also provided a detailed [Guideline for Food safety](#), including all stages of the food donation process so that businesses can ensure they have met the safety guidelines prior donation.



4 | Recycle

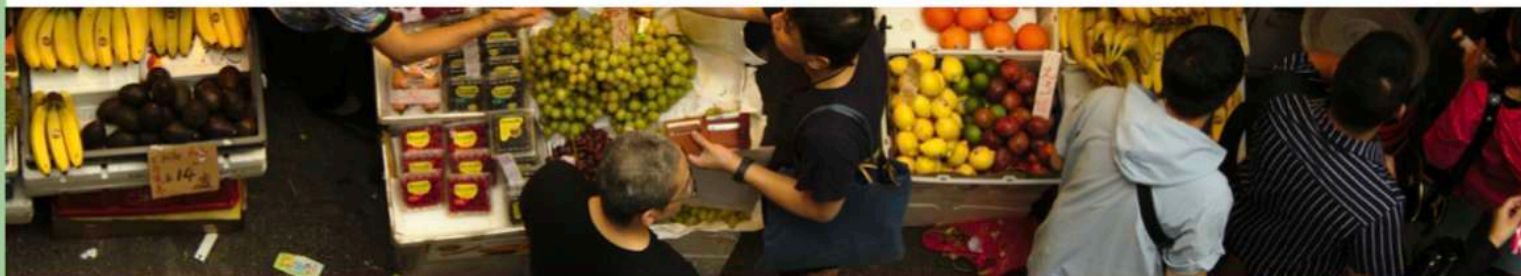
Though a zero waste approach would be most ideal, some parts of certain foods are simply not edible but can instead be redirected as a resource for other purposes besides consumption. Many successful sustainable F&Bs in Hong Kong have adopted a circular business model. According to an article on [circular economy by Medium Circulate](#), there are 4 main levers towards establishing a circular economy for food:

1. **Closed loop of nutrients** – methods like composting which turn food waste into nutrients for agriculture
2. **Cascading value from by-products** – for example recovering energy from food waste through anaerobic digestion
3. **Diversity of production** – shorten supply chains between farmers and retailers and consumers to reduce food waste generated from transport and storage
4. **The power of digital** – digital tools that facilitate measurement and tracking of food for better management and allocation of resources

One special way of dealing with food waste is turning it into a liquid. This method is used by an innovative technology called [ORCA](#) - a food digester - that turns food waste into an environmentally safe liquid that goes down the drain and is disposed of using the existing sanitary sewer infrastructure.

The [Hong Kong Recycler Collection Directory](#) lists all the recycling plants in Hong Kong. Some notable Food Waste Recycling and composting plants are:

- [ORCC programme](#)
- [O.Park](#)
- [Baguio](#)
- [Green Environmental Kitchen Residue Recycle](#)



ACKNOWLEDGEMENTS

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



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.



Foundation for Shared Impact's mission is to enable social entrepreneurs and high-impact organizations to maximize social value and minimize the barriers. FSI works with the University of Hong Kong - Faculty of Business and Economics to deliver its Social Venture Management (SVM) Course which connects students through internships with impactful organisations solving the world's most pressing problems.