

The title "WWF'S Guide to ZERO WASTE Events" is presented in a playful, hand-drawn style. The words "WWF'S" and "Events" are in white text on teal rectangular backgrounds, while "Guide to" and "ZERO WASTE" are in teal text on white rectangular backgrounds. The text is surrounded by light blue line-art icons: a sun behind a cloud, a bottle and glass, and a trash bin. The background of the entire page is a bright, sunny outdoor scene with a city skyline in the distance.

## Always wanted to reduce waste at your events but don't know how?

This toolkit was put together to provide event organisers with practical guidance and the tools for environmentally-friendly events. The team behind Earth Hour, along with field experts and event partners, has contributed real-life examples, science-based information and insider tips!



# WWF'S GUIDE TO ZERO WASTE EVENTS

## Why was this toolkit formed?

Driven by people and organisations that want to be part of events that are conscious and sustainable, there has been a surge in demand for zero-waste measures at events.

But what are the steps that we should take to cut out waste in events?

When WWF-Singapore planned the largest zero-waste Earth Hour in 2019, there were many discussions to help us get there. Through consultations on strategies to tackle waste in a large-scale event, possible solutions emerged.

Close to 40,000 people turned up at Earth Hour 2019. It also saved us 3,500 plastic bottles and more than 10,000 single-use disposable utensils and cutlery.

This toolkit provides recommendations and resources for event planners to:



**CUT** down on single-use disposables and food waste at their events;



**REPURPOSE & CONVERT** waste to other useful materials pre- and post-event; and



**DIVERT** waste away from the landfill for a circular economy

## Who is this toolkit for?

Mainly for large and small-scale event organisers in Singapore looking to minimise waste and introduce sustainable practices in their events.

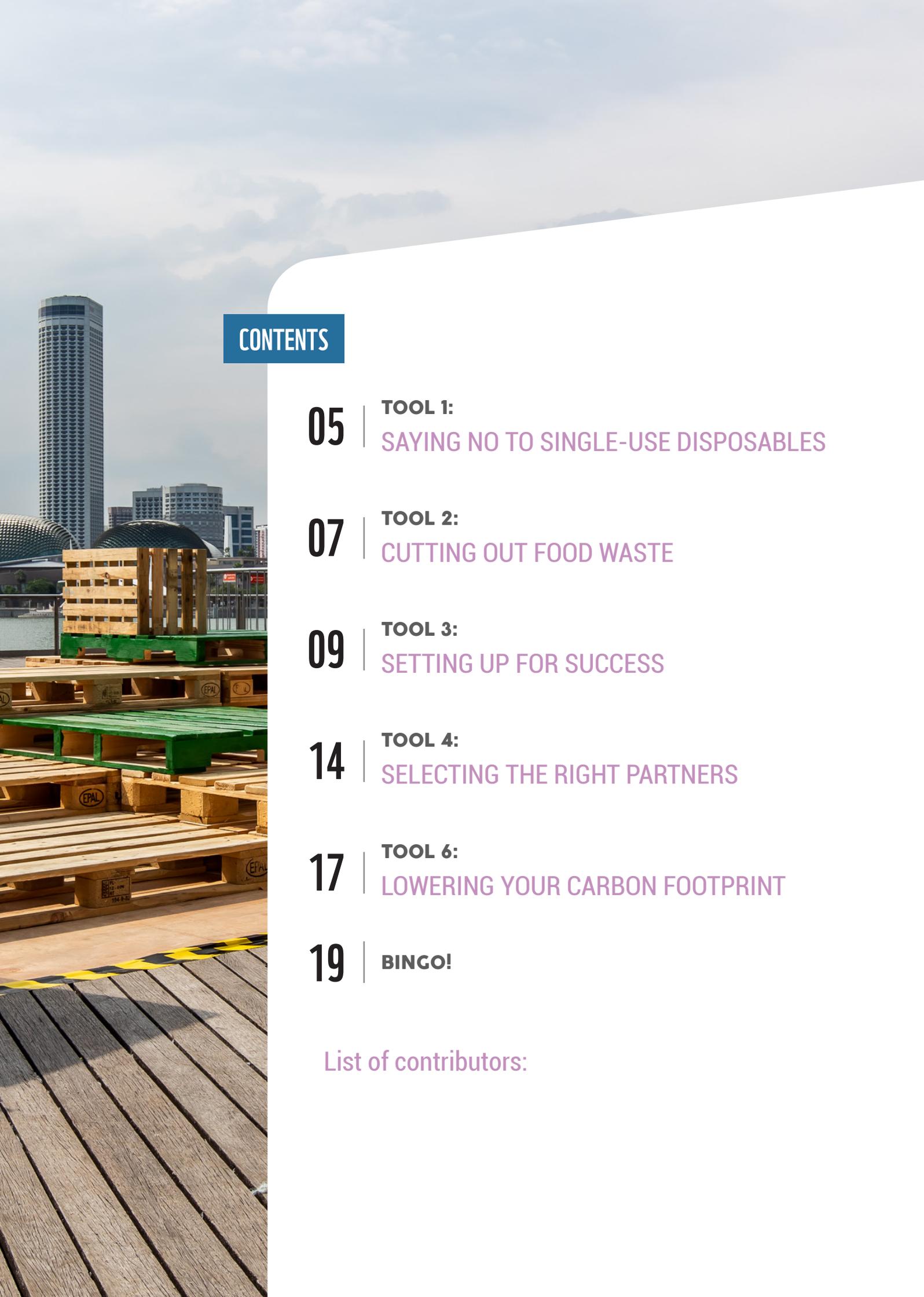
## How should I use it?

Whether it's using less plastic or selecting sustainable food vendors, think about the areas that you want to tackle first. We have five modules covering single-use disposables, cutting out food waste, setting up, vendor management, eating sustainably and lowering your carbon footprint. You are advised to start with a module that tackles the issue you want to address on your event first.

**Note:** This toolkit is customisable and scalable depending on your event size.



Read the sidebars for successes and challenges from Earth Hour 2019.



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List of contributors:



**3,500**

drinking plastic bottles saved



**10,000**

single-use disposable utensils and cutlery saved



A vendor kit

Rentable systems



FSC-certified printing



Sustainable F&B and retail vendors

# Tool 1

## SAYING NO TO

## SINGLE-USE DISPOSABLES

95% of plastics produced are meant for one-time use. Single-use cutlery represents large amounts of wasted resources – water, energy and carbon resources are used in the production, transportation of these items that end up being used for a very short amount of time before being disposed of. This waste often ends up incinerated, buried in landfills or in nature.

Taking steps to reduce the use of disposables provided at events creates an opportunity to help event goers understand how to go zero-waste too.



# RECOMMENDATIONS

## 1. Encourage your guests to Bring-Your-Own (BYO)

Providing an incentive such as discounts given by F&B vendors will increase the likelihood of attendees to bring their own reusable cups, containers and cutlery.

**Tip:** You cannot afford to skip marketing for your event. Encourage BYO practices by promoting your event online and offline. On social media, an event page with zero-waste updates also provides a platform for the community to discuss questions.

Cost ● ○ ○

Feasibility ● ○ ○

Sustainability ● ● ○

## 2. Set up water points

Did you know that 467 million plastic bottles are disposed of each year in Singapore? Installing water points is one of the easiest ways to go zero-waste at any event. All you have to do: put up water points at prominent positions around the event area.

Cost ● ● ○

Feasibility ● ● ●

Sustainability ● ● ●

## 3. Provide reusable utensils and cutlery

If you are running a smaller event, check with the operations team at the venue if they can provide reusable cutlery. You could consider a rent-and-return system. For example, event-goers could rent a reusable cup for \$5 as deposit and receive the \$5 back once the cup is returned. It is not only hassle-free, it also ensures that you do not lose money if a cup goes missing.

**Tip:** Event planners are encouraged to employ volunteers and place plenty of informational signage to direct people to the collection points to return their rented reusables. For smaller events, attendees could be briefed to bring all items to the collection area.

Cost ● ● ○

Feasibility ● ● ○

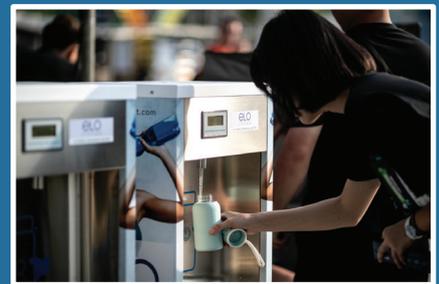
Sustainability ● ● ●

## #EARTHHOUR

### Elo Water

**3,500 plastic bottles saved!**

At Earth Hour 2019, we had three water stations for attendees to refill their reusable bottles and rented cups with. It was fuss-free, convenient and most importantly, the potential impact of plastic bottles and water consumption saved was huge!



*An event attendee refilling her reusable water bottle from one of the Elo Water dispensers.*

### Shinpuru

**10,000 single-use disposable utensils and cutlery saved!**

When we received our meals with reusable bowls and spoons, it gave us a first glimpse of how easy it could be for us to move towards zero-waste events in Singapore. Once finished, we could easily return them at drop-off stations too. Shinpuru collected them at collection points, washed them and returned them to our food vendors. Working with like-minded partners is key in helping us achieve a low-waste event.



# Tool 2

## CUTTING OUT FOOD WASTE

When we waste edible food, all of the resources spent growing, producing, processing, and transporting that food are also wasted. It has been estimated globally that a shocking 1.3 billion tons of edible food produced for human consumption is lost or wasted.

There is an urgent need to reduce food waste at events as more than half the total amount of waste from events can come from food. The amount of food waste left behind during events is recognised as one of the most significant environmental impacts of events.

In Singapore, the bulk of food waste (about 88%) is incinerated. While this helps to reduce the volume of waste by up to 90%, incineration actually generates greenhouse gases.



# RECOMMENDATIONS

## (PART ONE)

### 1. Redistribute unused food

Food can be redistributed when it is still tasty and edible! Look for partners such as SG Food Rescue, Treedots and Treatsure that can help redistribute your unfinished food, so that it does not go to waste.

### 2. Compost your food waste

It helps divert food waste from landfills or incinerators, reducing greenhouse gases generated, and converts waste into a great resource that goes back into our food system. The process is simple and uncomplicated as it does not require equipment and processing compared to solutions like biodigesters.

**Step one:** To compost food waste, you have to segregate food waste in a separate bin. Separate food waste from non-food waste items such as disposable cutlery or napkins to support successful food waste recycling. If segregated properly and relatively uncontaminated, over 90% of food waste can be processed into high-quality compost.

**Step two:** Either work with partners that can help turn this waste into compost or pick venues that already have compost or food recycling machines. Also, remember to ensure that the bin liners are compostable and ask your partners for advice. But if you have the budget, consider purchasing an onsite composting machine too.



**Tip:** Assign volunteers and put up signages at food disposal stations to enforce and ensure the attendees are doing it correctly. Volunteers should conduct regular checks on the bins and remove non-food waste items. Single-use items like cutlery and tableware can greatly affect the amount and quality of compost that can be produced. They can contaminate the feedstock and limit its potential in waste minimisation.

Cost ● ● ○

Feasibility ● ● ●

Sustainability ● ● ●

#EARTH HOUR

### Citizen Farm

Citizen Farm helped us turn approximately 15kg of food waste into compost as it diverts food waste from landfills or incinerators. It also reduced greenhouse gases generated, and converted waste into a great resource that goes back into our food system. While composting is important, it should always be the last step in tackling food waste.



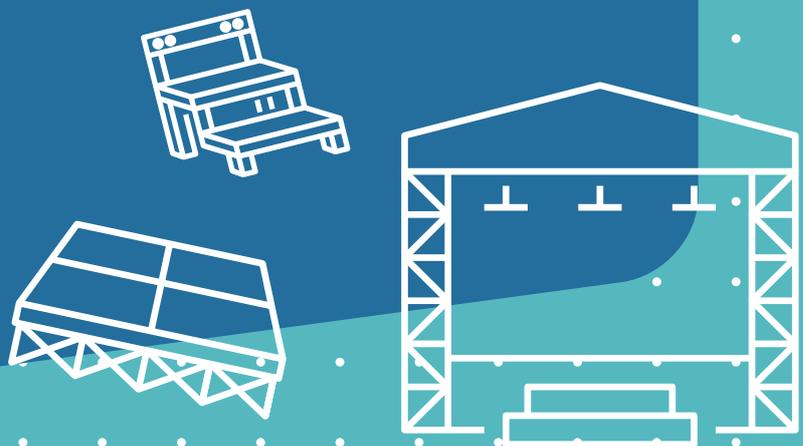
*We labelled the food waste bins, lined the bins with compostable material provided by Citizen Farm and deployed volunteers to enforce proper segregation.*

# Tool 3

## SETTING UP FOR SUCCESS

A creative, exciting and well-organised space is the backbone of every successful event. Tents, structures, stages and signages - the very elements that go into setting up a great event space can also generate a significant amount of waste. In fact, non-food waste including paper and plastics made up about 36% of waste generated in events.

What measures can event organisers take to reduce huge volumes of waste while ensuring a functional, safe and high quality event set up? While it is impossible to avoid all waste on this aspect, a lot can be done with the help of good partners and choosing the right materials.



# RECOMMENDATIONS

## 1. Use repurposed materials for structures

It is possible to source large volumes of materials such as rescued wood pellets from industrial processes or other events. Source leftover materials and build them into functional event structures. Wood pellets can be turned into platforms when stacked, and assembled after. After the event, you can dismantle these materials and pass them on to find a new lease of life at another event! This also applies to signages around the event.

**Tip:** Instead of printing signs that can only be used for one event, consider using a design that can be reused for many events. For example, avoid adding the date or year on the design.

Cost ● ● ○

Feasibility ● ● ○

Sustainability ● ● ●

#EARTH HOUR

## Triple Eyelid and XCEL Industrial

Materials used for booth structures, workshop spaces and chill-out corners came from locally rescued wood pallets provided by XCEL Industrial Supplies and designed by local furniture design studio Triple Eyelid. The structures were designed to be easily assembled with screws and brackets. The team had to steer away from permanent joining methods like adhesive and nails to allow easy disassembling. After the event, both XCEL Industrial Supplies and Triple Eyelid ensured that no material was being discarded and will continue to serve its purpose either as a cargo pallet or a new life as upcycled furniture.



Rescued wood pellets were repurposed to form functional seating areas at the event.

At Earth Hour, an art installation of coral reefs was created from used plastic pipes to represent healthy oceans.



# RECOMMENDATIONS

## (PART TWO)

### 1. Work with certified sustainable paper

Paper made with wood pulp sourced from well-managed forests carry certification from the Forest Stewardship Council (FSC). The FSC defines a strict set of standards that paper products must meet in order to prove that they are truly environmentally and socially responsible.

Your choice will encourage paper manufacturers to seek out wood suppliers that work to protect habitats, prevent pollution, avoid displacing communities and harming wildlife.

Cost ● ● ○

Feasibility ● ● ●

Sustainability ● ● ●

### 2. Choose soy-based ink

Soy beans could be replaced at a faster rate compared to chemicals found in traditional, petroleum-based inks. Soy-based inks are naturally low in volatile organic compounds and its use will reduce carbon emissions.

Cost ● ● ○

Feasibility ● ● ●

Sustainability ● ● ○

## #EARTHHOUR

### All about paper and ink

We work with FSC-certified printers and our Earth Hour collaterals were printed on FSC-certified paper and soy-based ink.



*At Earth Hour, brochures were printed on FSC-certified paper.*

Find out more about FSC certification and soy-based ink printing on the next page.

## Classification of FSC-certified paper types

FSC 100%	The wood within the product comes completely from FSC-certified well-managed forests.
FSC Recycled	All the wood or paper in the product comes from reclaimed material.
FSC Mix	<p>The wood within the product is from FSC-certified forests, recycled material, or controlled wood. While not FSC certified, controlled wood cannot be:</p> <ul style="list-style-type: none"> <li>• illegally harvested</li> <li>• harvested in violation of traditional and civil rights;</li> <li>• harvested in forests where high conservation values (HCVs) are threatened;</li> <li>• harvested in forests being converted to plantations or non-forest use;</li> <li>• harvested in forests where genetically modified trees are planted.</li> </ul>

## Soy-based ink vs petroleum-based ink

What	How
Soy-based ink contains about 17% of the amount of volatile organic compounds (VOCs) as the petroleum-based ink.	This translates to about 70% fewer emissions into the air for an equivalent amount of printing with petroleum ink. VOCs can be harmful to human and animal health.
Soy-based ink spreads about 15% further. It uses approximately 17% less ink than petroleum-based ink on a per sheet printed basis.	It uses approximately 17% less ink than petroleum-based ink on a per sheet printed basis.
Soy-based ink can be removed from paper more easily than petroleum-based ink during the de-inking process.	This allows the recycled paper to have less damage to its paper fibres and have a brighter appearance, making it easier for the paper to be recycled.

# Tool 4

## SELECTING THE RIGHT PARTNERS

Organising a big event? It takes a village - quite literally. Even more crucially, if you are looking to hold a sustainable minimal-waste event, what your vendors do or bring to the table can make or break the event. This is why the partners you choose, vendor management and operational readiness are critical for a successful zero-waste event.

For example, you could consider businesses that are encouraging a zero-waste lifestyle through their products and have responsible practices that are aligned with principles of sustainability.



# RECOMMENDATIONS

## 1. Provide an event kit for vendors

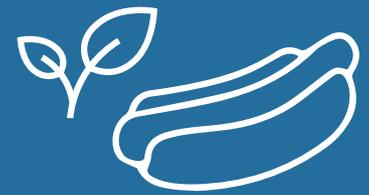
This could be done over email with clear, constant reminders like a list of do's and don'ts at the event. To create your own standard operating procedures, work closely with your logistics team on how to operate and facilitate the initiatives you have in place (refer to single-use disposable module 1).

**Tip:** Allow your event vendors to coordinate with other event partners especially if they have special requests or concerns so they are comfortable.

Cost ● ○ ○

Feasibility ● ● ○

Sustainability ● ● ○



#EARTH HOUR

## Beyond Meat

One of the bestselling items at Earth Hour 2019 was the Beyond Meat food truck by Grand Hyatt. They served plant-based hotdogs sandwiched in vegan buns. You could also rent a reusable cup or get a kombucha fix at their stand!

*The Beyond Sausage Food Truck served their signature plant-based sausages sandwiched in homemade vegan buns.*



# RECOMMENDATIONS

## 2. Find partners that promote conscious eating

Feeding a planet with a growing appetite comes at a price. Food uses most of our natural resources like water and land - and the production of it is linked to environmental challenges like deforestation and greenhouse gas emissions.

If you are looking to feed thousands of mouths at your event, there is a lot of impact that you can influence just by being more aware of the types of food you serve and the food vendors you select.

### Opt for vegetarian and vegan options

Farming animals for meat and dairy require space and huge inputs of water and feed. Today, one of the biggest causes of forest loss is the expansion of agricultural land for animal feed production, such as soy.

### Go for restaurants that serve certified sustainable seafood



3 out of 4 fish species commonly eaten in Singapore are unsustainable, and 90% of the world's fishing grounds are already fished to the limits or overfished. Look out for the green Aquaculture Stewardship Council (ASC) labels that support the production of responsibly farmed seafood. WWF also recommends the Marine Stewardship Council (MSC) blue label to help you identify and purchase fish from a well-managed sources. When you buy a certified product, demand for responsible aquaculture will grow and farms will increase, encouraging farms to achieve the certification.

### Make an active decision to support RSPO-certified food

Look out for eco-certification in products such as the Roundtable on Sustainable Palm Oil (RSPO) that are recognised certifications by WWF as they meet the minimum benchmarks of sustainable production.

Slash and burn is a cheap and quick way to clear forests for palm oil plantations. When vegetation is cut down and set on fire, it results in severe air pollution and haze. The RSPO certification marks the standard of sustainable palm oil production.

Tip: Ask the brands how they are performing on palm oil by checking our scorecard: <https://palmoilscorecard.panda.org>.

Cost ● ● ●

Feasibility ● ● ●

Sustainability ● ● ●

# Tool 5

## LOWERING YOUR CARBON FOOTPRINT

A large proportion of emissions from an event are attributed to participants travelling to and from the venue as well as the sheer energy needed to power the entire event, concerts and other performances. Oversized generators are commonly used and this leads to excessive emissions.



# RECOMMENDATIONS

## 1. Promote public or shared transport



Overall, travel incurred for festivals can amount to between 67% and 82% of the average carbon emissions, excluding waste. Encourage event-goers to use public transport or provide shuttle services to and from the venue.

Cost ● ○ ○

Feasibility ● ● ○

Sustainability ● ● ○

## 2. Ensure an energy efficient lighting set up



The use of LED lighting can reduce up to 25% of emissions from power for lighting. For example, the maximum lighting demand during Radiohead's performance is 25% lower than found elsewhere in the festival with standard incandescent lighting.<sup>1</sup> Use energy-efficient amplifiers like class-D switch-mode amplifiers rather than traditional analogue amplifiers can improve the efficiency of stage audio by up to 44%.

Cost ● ● ○

Feasibility ● ● ○

Sustainability ● ● ○

## 3. Choose the right generators



Oversized generators are often used to provide excess capacity to cope with any sudden peaks to ensure energy security. Using appropriately-sized generators can ensure up to 50% reduction<sup>12</sup> in energy use.

Cost ● ● ●

Feasibility ● ● ○

Sustainability ● ● ○

## 4. Do a carbon offset



Work with auditing partners that can calculate the amount of carbon consumed and do a carbon offset. WWF endorses the Gold Standard for carbon offsets in the energy sector. Gold Standard projects are high-quality initiatives that make investments in clean energy or efficient production and also contribute to the sustainable development of the countries in which they are hosted.

Cost ● ● ●

Feasibility ● ● ○

Sustainability ● ● ●

<sup>1</sup> Fleming et al., 2014



# ZERO WASTE

# BINGO!

Congrats on making it through the five modules! Here is a checklist of recommendations to go zero-waste at your event.

Check the boxes that you act on. When you are done, add up your scores in the scorecard and find out how you have done!

Use LED lights	Opt for plant-based options	Reuse printed signages for other events	Use repurposed materials for event structures	Segregate food waste in a separate bin
Encourage guests to Bring Your Own (BYO)	Set up water points	Provide reusable utensils & cutlery	Redistribute unused food	Work with sustainable paper
Create and send a zero-waste guide or kit to all vendors	Choose soy-based ink instead of petroleum-based ink	 Free square!	Work with an auditing partner to do a carbon offset	Go for restaurants that serve certified sustainable seafood
Support food products with eco-certs like RSPO	Compost your food waste	Curate vendors that encourage sustainability	Avoid using oversized generators	Employ volunteers and signages to enforce food segregation
Encourage use of public transport or provide shuttle services	Encourage BYO practices by promoting online and offline	Consider a rent-and-return system	Pick venues that already have compost machines	Consider printing designs that can be reused for many events

## Scorecard

*If you have checked off:*

1 – 5 boxes: We are proud of you for getting started! Find out what you can do to improve your sustainability score.

6 – 10 boxes: You are on the right track! Check out our sidebars for more tips and learnings from Earth Hour.

11 – 15 boxes: Achievement unlocked! You are on your way to planning a successful zero-waste event!

16 – 24 boxes: Wow, you are truly a star! Share your experience with other event planners and spread the message.