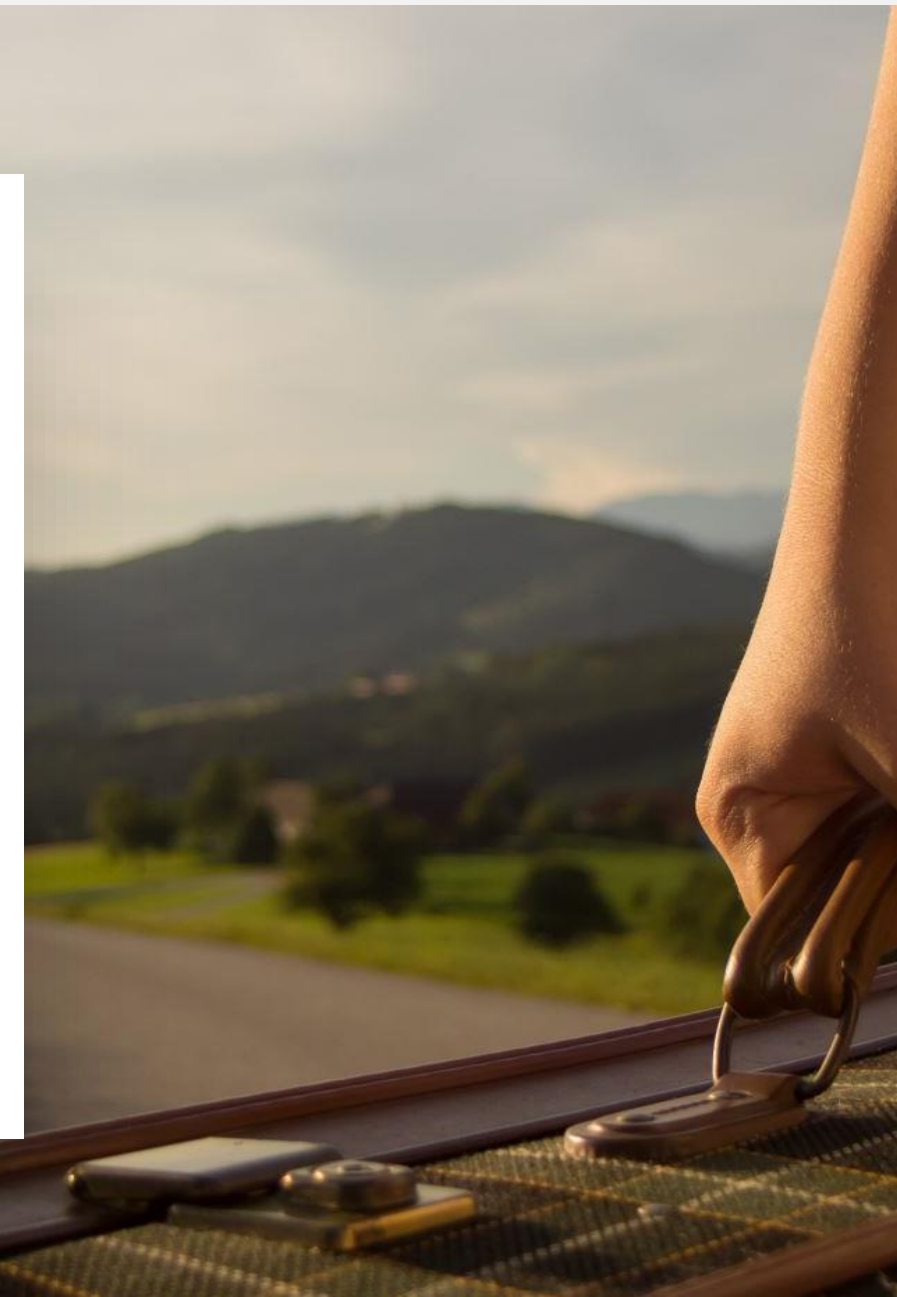




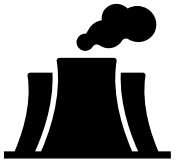
**One planet**  
travel with care

## One Planet Sustainable Tourism Programme

*Accelerating sustainable consumption and production to address the challenges of climate change, biodiversity loss and pollution*



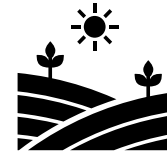
# Food loss and waste exacerbate some of the most urgent challenges of our time, including climate change and biodiversity loss



The global food system is estimated to generate **34% of global GHG emissions.**



**1/3** of food produced globally for human consumption is **wasted or lost** along the value chain, resulting in an **annual loss of nearly \$1 trillion.**



**50% of habitable land** and **70% of available freshwater** are used by food systems.



Around **14%** of food is lost after being harvested and before reaching the market; a further **17%** is **wasted in retail and by consumers.**



Looking to the future... by 2030, food loss and waste are expected to **increase by 60%**, resulting in a loss of **over \$1.5 trillion.**



One planet  
travel with care

# Tackling food waste in the tourism sector can deliver many environmental, social, and economic benefits

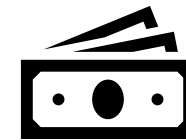


The hospitality sector contributes heavily to food waste and loss generation:

- Food service (including in tourism) contributes 26% of all food wasted at consumption stage – the equivalent of **32 kg per person per year**.
- In the US, about 63 million tons of food are wasted each year, with **40% of waste produced by consumer-facing businesses, including restaurants and hotels**.
- In the UK, an estimated **18%** of annual food waste originates **from the hospitality and food service industries**.

**Addressing food waste in tourism can:**

- **Improve business efficiency**
- **Lower operational costs**
- **Reduce GHG emissions**
- **Increase food security**



**A Champions 12.3. study of 42 hotels in 15 countries found that \$7 were saved for every \$1 invested in lowering kitchen food waste**





## SDG Target 12.3: Reducing Food Waste

*By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.*



**SCAN ME**



## Call to action:

*"There is a real need for the tourism sector to act now to build a resilient and sustainable future for itself and the planet."*

**The Roadmap encourages and provides recommendations for tourism stakeholders to:**



### **Set Targets**

Set the ambition by identifying a food waste reduction target;



### **Measure Progress**

Measure in a consistent way to be able to track progress against a baseline;



### **Take Action**

Take action to reduce food waste in tourism operations, work in partnership with suppliers and help guests reduce their food waste; and



### **Report**

Disclose progress, showcase successes, share learnings and challenges with other stakeholders to trigger changes at scale.



*The objective of the Global Roadmap is to accelerate the uptake of food waste reduction strategies by tourism stakeholders.*



#### **Accommodation providers:**

- By 2030, halve food waste per guest night; and
- By 2030, divert 100% of residual food waste from landfill (or incineration) or 50% where the infrastructure does not exist.

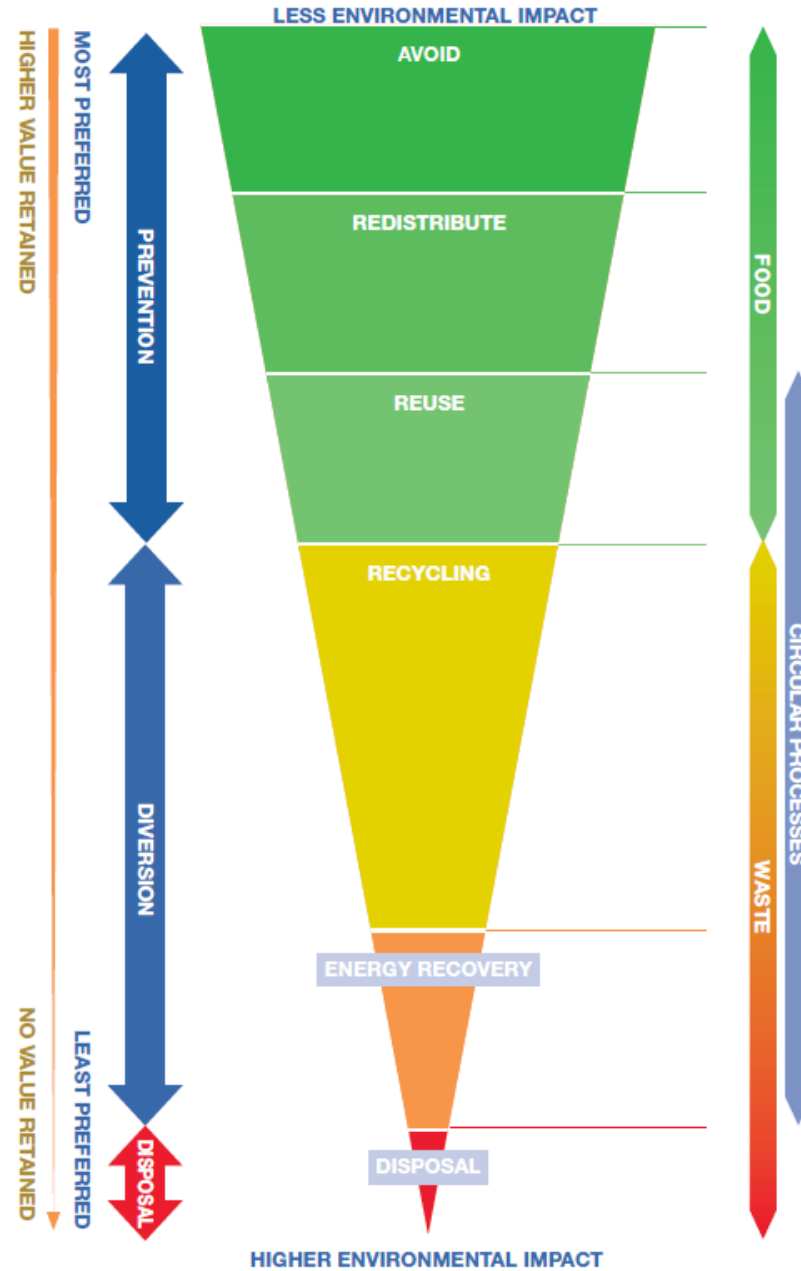


#### **Cruise lines:**

- By 2030, halve food waste per guest day; and
- By 2030, increase capacity on-board (or in port) to process 100% of residual food waste, avoiding any need to discharge to sea by 2030.



# THE HIERARCHY OF FOOD WASTE MANAGEMENT STRATEGIES TOWARDS ZERO WASTE TO LANDFILL

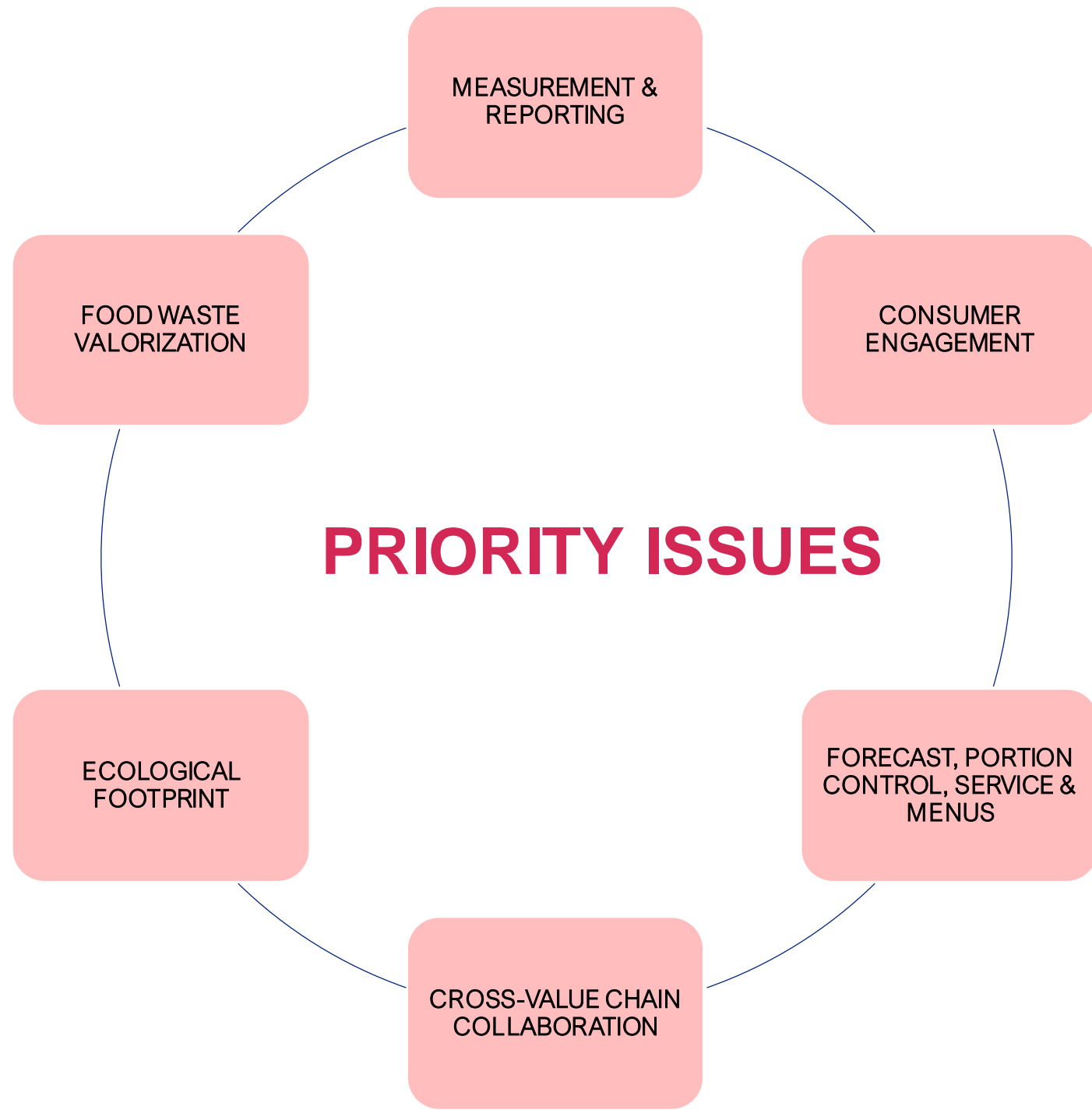




INTERNATIONAL  
**FOOD  
WASTE**  
COALITION

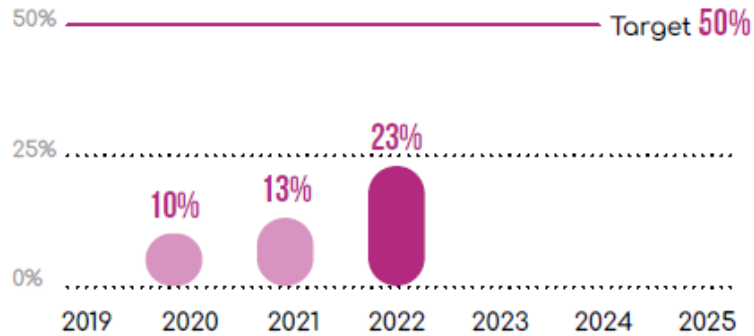




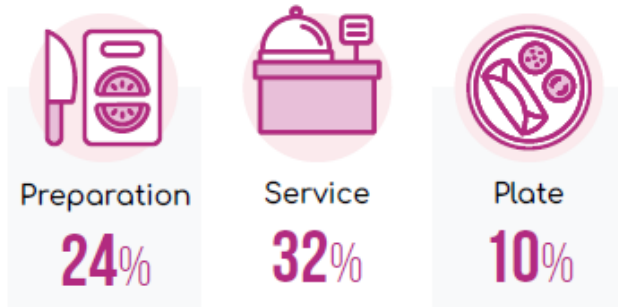


# COLLECTIVE RESULTS

## FOOD WASTE REDUCTION INDICATOR



### BREAKDOWN

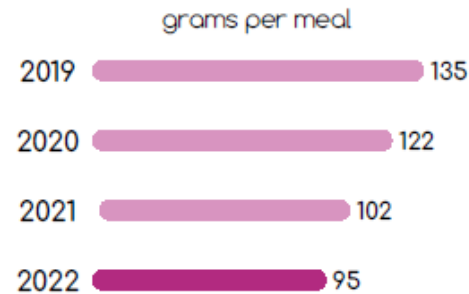


## FOOD SERVICE SECTOR



In 2022 food waste was down 7% to an average of 95 grams per meal

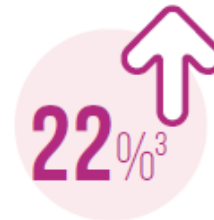
### Average



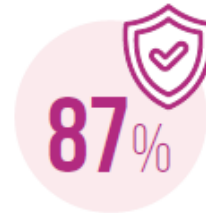
## REPORTING SITES



1,081<sup>4</sup> sites reported reliable data in 2022



1,411 sites set a baseline since 2019



87 % of sites reported reliable data in 2022

### KEY TAKEAWAYS

- ✓ 23 % food waste reduction since 2019
- ✓ In only 3 years, sites with reliable measurements are already halfway to UN SDG 12.3, which gives hope for massive progress for the entire sector

- ✓ The pandemic simplified the service organization which in turn allowed better control of overproduction
- ✓ Plate waste remains the area with the highest potential for improvement

# SOURCE PRODUCTS OUT OF SPECS

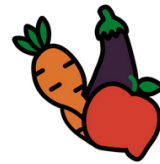


NOTRE ENGAGEMENT NOS PRODUITS NOS SERVICES PRODUCTEURS RESTAURATEURS

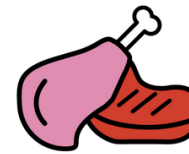
ESPACE PRO

## UN DISTRIBUTEUR ANTIGASPI DÉDIÉ À TOUTES LES FILIÈRES

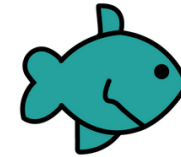
↳ Vous pensiez qu'il y avait uniquement les "fruits et légumes moches" ?



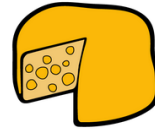
FRUITS & LÉGUMES



VIANDE & CHARCUTERIE



PRODUITS DE LA MER



FROMAGE & LAITERIE



TRAITEUR



BOULANGERIE & VIENNOISERIE

Atypique

Accueil

## Notre offre

Atypique propose une large gamme de fruits et légumes.

- ✓ Une **cinquantaine** de références de saisons chaque semaine
- ✓ Plus de **200 références** à l'année
- ✓ Une **offre stable** 100 % française

S'INSCRIRE



# SOURCE EXCESS PRODUCTION



# Food Waste Metrics



## Prevention target - accommodation providers and cruise lines:

- Total food waste per annum (metric tonnes);
- Total number of guest days or nights per annum; and
- Food waste (kg) per guest day or night.

## Diversion target - accommodation providers and cruise lines:

- Total food waste per annum (metric tonnes);
- Total food waste to landfill (or incineration) or discharge to sea per annum (tonnes); and
- % food waste diverted (from landfill – or incineration- or discharge to sea).

## Additional metrics

- Food waste per customer/ cover
- Food waste per revenue
- Food waste per total food handled
- Food waste per square meter



CLIENT NAME: SENAC BA  
**CARBON NEUTRAL CERTIFICATION**  
Expiration – December 2023

Participant: Restaurante-Escola SENAC Casa do Comércio

Carbon footprint type: Corporate

Reporting period: January - December 2021

Scope: 1, 2 and 3

Offset evidence data: Project Number - 1642

# PROMOTING RESPONSIBLE FOOD SERVICE



- Inventory control
- Proper storage
- Forecast demand
- Measuring food waste
- Smaller containers



# PROMOTING RESPONSIBLE FOOD SERVICE

- Full use of food
- Reuse of food
- Local sourcing
- Education and awareness





# PROMOTING RESPONSIBLE FOOD SERVICE



# ANIMAL FEED

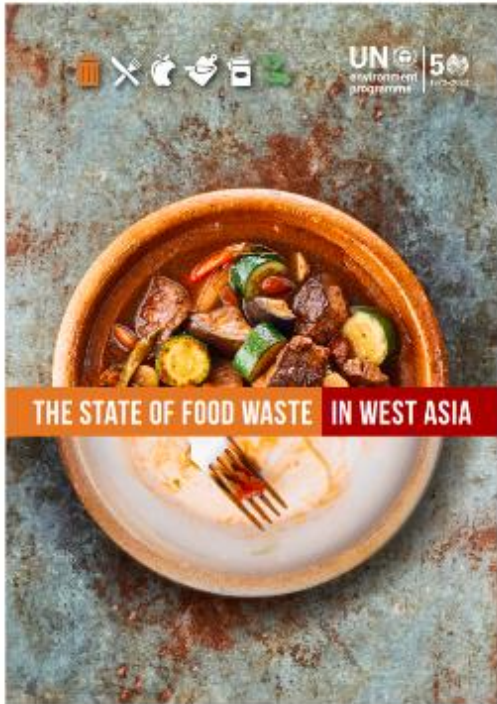




## CASE STUDY FROM COSTA CRUISES: REDISTRIBUTING FOOD SURPLUS TO LOCAL COMMUNITIES

- Rethinking food processes to allow onboarding of local produce in different ports
- Food waste reduction by 27% (2022) and measurement with artificial intelligence
- Italian Law No. 166/2016 on reducing food waste encourages food donations (of prepared but not served meals) for social aid
- Over 1.1 million meals donated to people in need in 15 destinations since 2017

# Addressing Food Waste in West Asia



- **Growing population, water scarcity, dependence on food import**, worsening of biodiversity indicators, political instability and conflicts

Food security in Arab States



- Studies in the region show significant per capita amount of **household food waste**, with **75-132 kg/cap** yearly generated

Food waste in Arab States



- Generate significant amounts of food waste over short periods.
- During **Ramadan** research shows that from **25% to 50%** of the **food prepared is wasted**.

Lifestyles in Arab States



Country name	Study area	Household food waste estimate (kg/capita)	Reference
Bahrain	Nationwide	132	Alayam 2018
Iraq	Baghdad	75	Al-Maliky and EIKhayat 2012
	Mosul	85	Al-Rawi and Al-Tayyar 2013
	Karbala	142	Al-Mas'udi and Al-Haydari 2015
	Al-Kut City	138	Sulaymon, Ibraheem and Graimed 2010
	Nassiriya	163	Yasir and Abudi 2009
Lebanon	Beirut	105	Chalak <i>et al.</i> 2019
Saudi Arabia	Nationwide	105	SAGO 2019

Source: UNEP 2021, pp. 43-44.

**Saudi Arabia's baseline (SAGO 2019):**  
 food loss and waste levels of around **33%** throughout the food supply chain

- food loss estimated at **14.2%**
- food waste estimated at **18.9%**

# Recipe of Change



## Consumer behaviour change programmes



**Recipe of Change**

Recipe of Change is a brand-new Food Waste campaign in the framework of the regional program by UNEP West Asia.

The campaign is focused on raising awareness on food waste issue and empowering the movement of change to achieve the SDG 12.3 that aims to halve food waste by 2030.

The campaign will be rolled out through social media content and series of campaign videos featuring Stephanie Alallah, George Khalaf, Chef Maroun Chedid, Chef Joe Barza, Chef Leyla Fathallah, Chef Youssef Akbi, Chef Tala Bashmi, Chef Ali Ghazmi, Chef Issa Al Bakushi, Chef Yasser, Chef Mona, Chef Musabeh Alkaabi.

The main purpose of the campaign is to maximize visibility on the issue of food waste in the region.

For that reason, we are inviting you to join Recipe of Change by sharing our campaign online and among peers.

The campaign will conclude with a challenge including influencers, chefs and everyone willing to participate creating their own Recipe of Change and sharing it on their social media pages.

[unepwestasia](#)

UN 50th Anniversary Programme | 50th Anniversary | Recipe of Change | GO 4 SDGs | United Nations | Sustainable Development Goals | Environment, Nature and Human Well-being

## Chef Leyla Fathallah – UNEP Advocate on Food Waste



**Raise awareness on food waste and promote behavioral change.**

Social media, on ground activations, TV shows, podcasts, articles



# Recipe of Change – Sustainable Ramadan

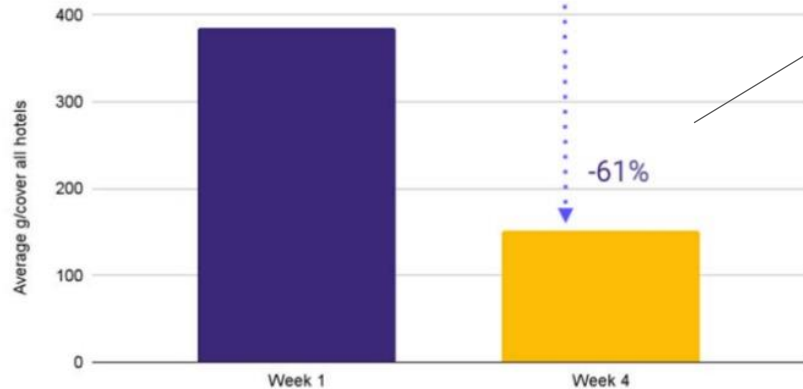


Ramadan 2023 - Partnership with the Hilton Green Ramadan Initiative

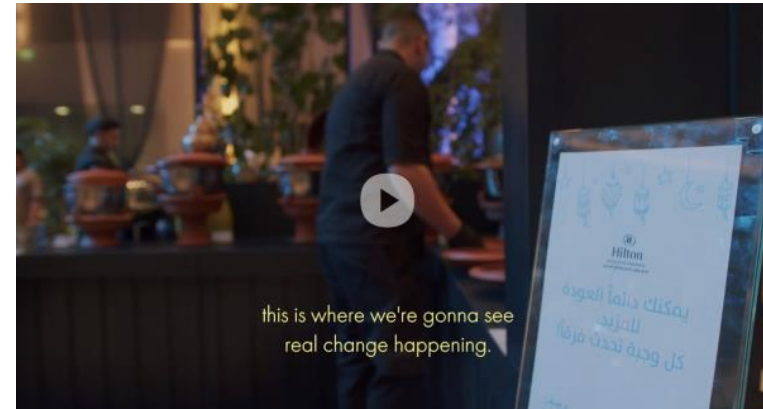


which really helped and engaged with our

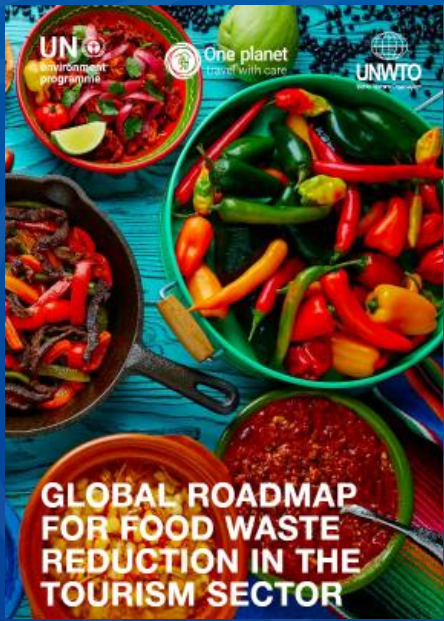
Average G/covers post consumer waste first vs final week



Average post-consumer waste reduced by 60%-65% over the Green Ramadan campaign in three outlets (Dubai, Qatar, and Riyadh).



this is where we're gonna see real change happening.



<https://www.youtube.com/watch?v=3mMR4ueZmXA>



**Prevention**



**Redistribution**



**Diversion**

Circulation/Valorization



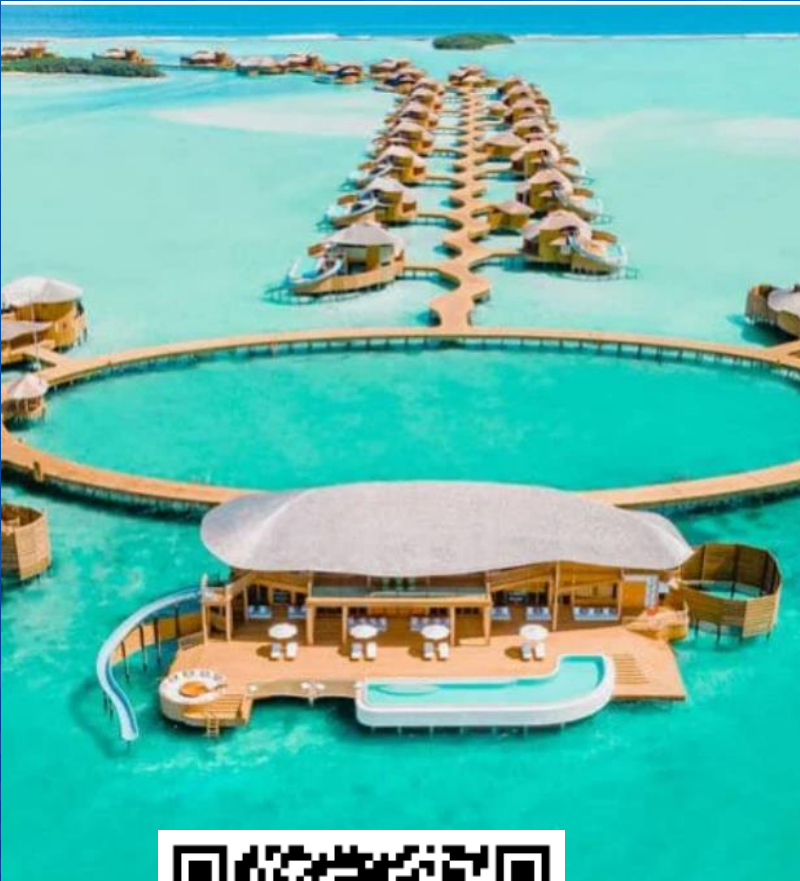


# FOOD WASTE – COMPOST – LOCAL PRODUCE



# CASE STUDY FROM SONEVA: WASTE TO WEALTH

- Food waste reduced by 50% compared to 2019
- Plant-based meals increased to 50% of offering
- 100% of food waste is recycled by composting (4,200 tonnes since 2009)
- Vegetable production increased from USD 16,000 a year in 2019 to USD 200,000 in 2021



# ON-SITE « ACCELERATED » COMPOSTING

+ Electrical assistance  
Up to 330 kg/day  
2-week output



30 kg/day  
2-week output



Several weeks are required to get mature ready compost.

# ON-SITE ANAEROBIC DIGESTION & ENERGY RECOVERY



From 30 tons to  
3000 tons per year

Fertilizer  
+ electricity production



SEaB Energy

on-site energy generator transforming  
organic waste



BioBeeBox

A containerized solution that transforms  
organic waste into energy, compost and  
water





## The Waste Transformers

on-site anaerobic digester for biodegradable waste



<https://www.youtube.com/watch?v=JGIA1Sl9jUg&t=101s>



**Prevention**



**Redistribution**



**Diversion**

Circulation/Valorization



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travel with care

National and subnational tourism policies

Waste management infrastructure (pre competitive collaboration)

Staff training and customer engagement

Climate action

Regulations and incentives

Holistic approaches:

- ✓ Local sourcing
- ✓ Conscious preparation
- ✓ Better waste management: Prevention. Redistribution. Valorization (through circular processes).

Innovation and investments

## Levers for scaling-up food waste reduction in the tourism sector



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travel with care

**Food production and consumption shall occur in a sustainable loop, minimizing waste, and maximizing resource efficiency and the benefits for people.**