The opportunities and challenges of tourism & hospitality food waste management at a destination level

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Food waste as a major societal challenge

- 31% of the food produced for human consumption is lost or wasted (UNEP 2021)
  - Production = loss; Consumption = Waste
- Out of the home food consumption (=tourism and hospitality) accounts for at least 15% of global food waste
  - National studies suggest much higher figures e.g. >50% in China (Wang et al. 2018)
- Accurate figures on tourism & hospitality food waste are unknown
  - UNEP (2021) identify only 9 (out of 233) countries and territories (or only 4%) where food waste estimates in tourism & hospitality can be described as High confidence
  - 91% of global countries and territories have food waste estimates labelled as Low or Very low confidence
- The sector’s diversity is the main reason
- Demonstrates the need for food waste research, including the need to develop relevant indicators for (more sustainable) destination management
Food waste in tourism & hospitality

- Food waste is a major cost for tourism & hospitality businesses
  - Estimated £3 billion per year or 2.3% of annual turnover (SRA 2014)

- Food waste occurs at the stage of:
  - Preparation / Cooking (50%)
  - Consumption = consumer plates (35%)
  - Handling / storage (15%)

- Top-3 categories of wasted food are:
  - Fruits & vegetables
  - Bakery
  - Meat
Food waste in tourism & hospitality

- Correlation between business ownership model and food waste (Filimonau and Uddin 2021)
  - Less food is wasted in chain affiliated businesses

- Correlation between foodservice quality and food waste
  - Upmarket / Luxury / fine dining businesses waste more food in the kitchen
  - Plate waste is the main problem in budget/quick service businesses

- Correlation between business size and food waste
  - Larger companies waste less food per guest/customer
Food waste management in tourism & hospitality

- Approaches to management are largely PASSIVE (Filimonau and De Coteau 2019)
  - The sector is extremely conservative
  - Food waste estimates are sometimes considered business sensitive
  - Environmental sustainability is not seen as a priority
  - Effect of Covid → focus on profit maximisation at all costs to offset lost revenues
Food waste management in tourism & hospitality

• Some ‘best practices’ do exist need to be routinely inventoried

• KITCHEN
  • AI to forecast demand e.g. Prognolite
  • Chefs’ (re)training on resourceful cooking
  • Surplus meals → food rescue
  • On-Demand/’What’s available’ menu

• POST-KITCHEN
  • Nudging consumers
  • On-site composting ←→ on-site mini / vertical farms
  • Collaboration with farmers (=industrial symbiosis)
One Planet Sustainable Tourism Programme

Objectives:

✓ To deliver a UN mandate on supporting and accelerating the shift to sustainable consumption and production patterns in tourism

✓ To tackle the challenges of pollution, biodiversity loss and climate change

✓ To report the annual progress to the High-level Political Forum of the United Nations Economic and Social Council

Led by:

UNWTO
World Tourism Organization

In collaboration with
Addressing climate change, pollution and biodiversity loss

Building a circular economy of plastics in tourism

Accelerating climate action in tourism

Integrating SCP in tourism food value chains
Global Roadmap on Food Waste Reduction in the Tourism Sector

✓ A global reference for the scaling up of sustainable food management in the tourism sector, including the reduction of food waste, a Global Roadmap on Food Waste Reduction in the Tourism Sector is being developed.

The Roadmap will encompass a systemic approach with regards to sustainable food management, notably in connection with sustainable procurement and sustainable diets in addition to food waste.
A toolkit for communication food waste to guests

World Tourism Organization (UNWTO)

FEBRUARY 14, 2022

This toolkit was put together by World Wildlife Fund to provide better tools and resources for communicating with...

**ORGANISATION:**
World Tourism Organization (UNWTO)

**TYPE:**

**BBCF**

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BUFFET - Building and Understanding for Food Excess in Tourism

 PACIFIC ASIA TRAVEL ASSOCIATION (PATA)

JANUARY 31, 2020

Author: The Pacific Asia Travel Association (PATA)

https://www.pata.org/food-waste/

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**ORGANISATION:**
Pacific Asia Travel Association (PATA)

**TYPE:**
Case studies, Concrete Applications and Best Practices

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Manual: Sustainable Food Tools - Ways to Communicate with Guests

MODUL UNIVERSITY VIENNA (MU), DEPARTMENT OF TOURISM & SERVICE MANAGEMENT

FEBRUARY 1, 2018

The manual is freely available to the tourism industry. Through the use of these tools hotels' commitment to sustainable food...

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**ORGANISATION:**
MODUL UNIVERSITY VIENNA (MU), DEPARTMENT OF TOURISM & SERVICE MANAGEMENT

**TYPE:**

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Hotel Kitchen - Toolkits

WORLD TOURISM ORGANIZATION (UNWTO)

NOVEMBER 30, 2021

Authors: World Wildlife Fund (WWF), American Hotel and Lodging Association (AHLA), The Rockefeller Foundation

Understanding...

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**ORGANISATION:**
World Tourism Organization (UNWTO)

**TYPE:**

Potential indicators for food waste monitoring at a destination level

- **Quantity** → measurements are difficult and not always wanted by the industry
  - However, ‘what can be measured, can be managed’
  - How to separate TOURISM food waste from LEISURE food waste, especially in light of seasonality?

- **Character** = composition → as per above

- **Availability of on-site separation for composting and reuse** (yes/no)

- **Method of collection** → private contractors tend to be more effective in composting food waste

- **Method of disposal** → composting, land-spreading, thermal, sewer & landfill

**BUT ALSO**

- **Measures adopted in-house for food waste prevention**
  - Kitchen / Post-kitchen

- **Contractual obligations/commitments** e.g. with TUI or other tour operator
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