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LANGUAGE: ENGLISH

Online Training Series on
Sustainable Food in Tourism:

# Procurement

THURSDAY
17
NOV
2022

FROM
15:00
TO
16:00
CET

# Agenda

- Welcome remarks
- Introduction to the Joint Programme on promoting sustainable food consumption and production patterns through integrated tools, advocacy and multi-stakeholder action
- Training:
  - What aspects must be considered in a sustainable food procurement policy
  - Main fields of action in sustainable food procurement
- Q & A

# Housekeeping

For a smooth and fruitful session, kindly make sure you:

- ✓ Are muted when not speaking;
- ✓ Adjust your name in Zoom (right click) to show:
  Name of your organisation – Your name
- ✓ Post your questions in the chat during Q & A;
- ✓ Please note that the session is being recorded.

# Welcome

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# Introduction

## Joint Programme
## Promoting sustainable food consumption and production patterns through integrated tools, advocacy and multi-stakeholder action

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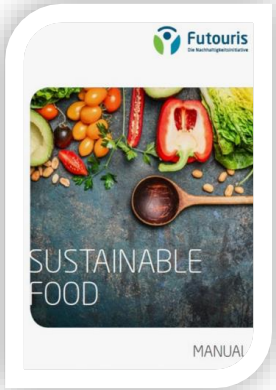
# Useful resources

- Repository of tools and resources to support stakeholders accelerate the sustainable management of food in tourism and includes relevant documents on sustainable procurement, sustainable diets, sustainable consumption, as well as a strong emphasis on food waste reduction.




**Futouris Sustainable Food Manual**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# Sustainable Food Management in Tourism

**Procurement**

**Preparation**

**Consumption**

**Waste**

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# What aspects must be considered in a sustainable food procurement policy

Seasonal Food

Water Footprint

Biodiversity

Fair Trade

Climate crisis

Organic Food

Regionality

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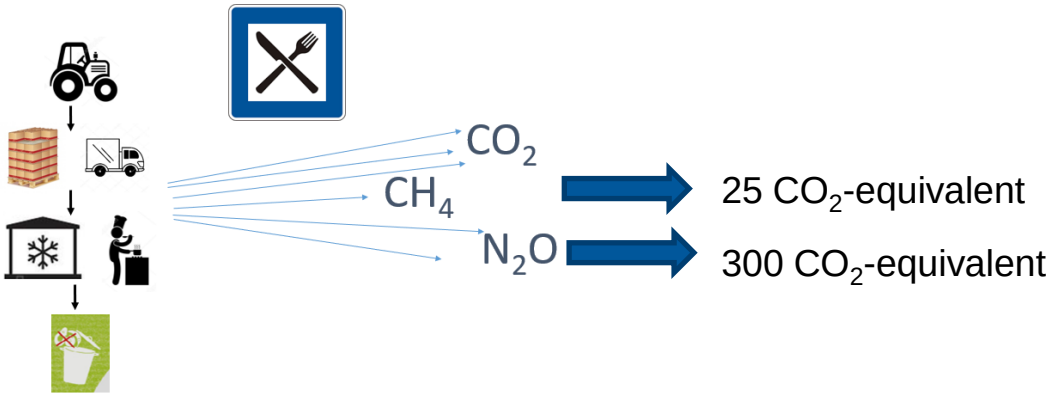
# Greenhouse Gas Emissions from food services

- Different greenhouse gases (GHG) are relevant:




- Greenhouse gas emissions depend on the mode and distance of transport, the production methods used, and the food item itself.

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# Transport-related $CO_2$-emissions

**THE CLIMATE IMPACT OF DIFFERENT MEANS OF TRANSPORTATION**

| Means of transportation | $CO^2$ emissions per transported ton of food and kilometer |
|---|---|
| open sea vessel | 9 |
| inland water vessel | 34 |
| train | 40 |
| truck | 135 |
| plane | 2.041 |

*Ministry of the Environment, Agriculture, Food, Viticulture and Forestry Rheinland-Pfalz (2014)*

**Remember**

Transport-related emissions are often smaller for regional food products, as distance is an important determinant of emissions.

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# Production methods and CO2-emissions

**CO2 emissions of outdoor and heated greenhouse cultivation (in kg per kg of produce)[3]**

| Produce | outdoor cultivation | heated greenhouse cultivation |
|---|---|---|
| leek | 0,19 | 5,4 |
| lettuce | 0,14 | 4,5 |
| cucumber | 0,17 | 2,3 |
| paprika | 0,21 | 1,1 |

*Jungbluth, N. (2000)*


*Organic production is generally more climate-friendly, as organic fertilizers are preferred over energy-intensive artificial fertilizers. A life cycle assessment for dairy, wheat bread and vegetables shows 10%–35% lower $CO_2$-e emissions of organic products than of conventional food.*

*Lindenthal et al. (2010)*

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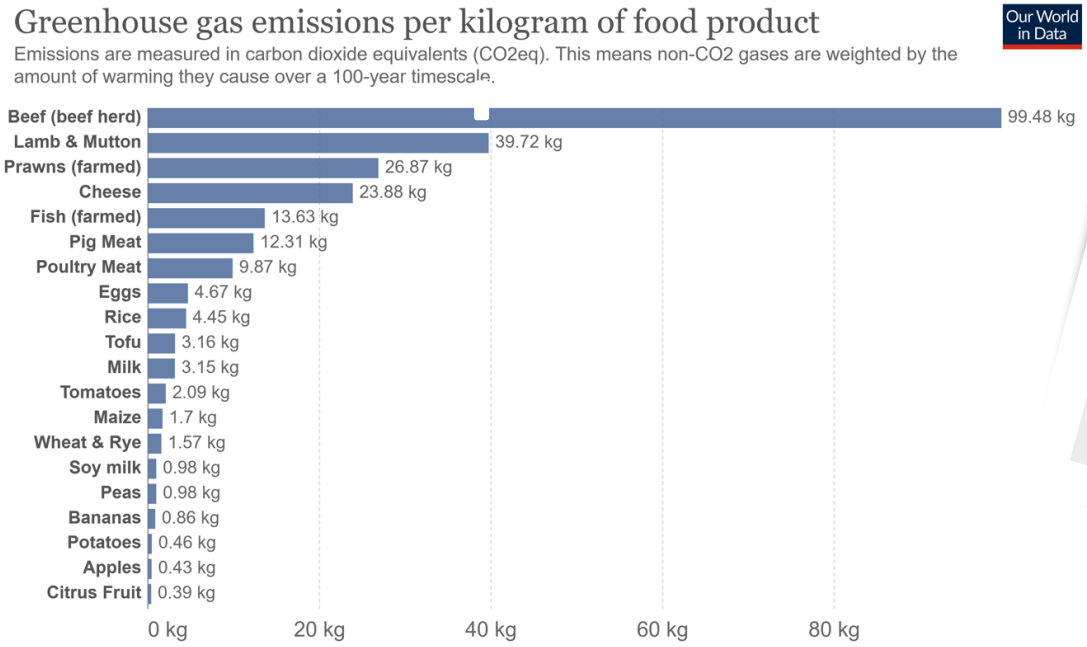
# Food items and Greenhouse Gas Emissions




Source: Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers.
Note: Greenhouse gases are weighted by their global warming potential value (GWP100). GWP100 measures the relative warming impact of one molecule of a greenhouse gas, relative to carbon dioxide, over 100 years.
OurWorldInData.org/environmental-impacts-of-food • CC BY

**Remember**
Meat and dairy products, fish and seafood are among the most carbon-intensive products.

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# Tool: Foodprint Calculators

There is a selection of Foodprints Calculators on https://www.earthday.org/foodprints-calculators/

PLATE UP FOR THE PLANET

## Carbon Calculator

1. Select the ingredient from the drop-down list, or start typing your ingredient name in the box. You can reduce the options in the drop-down list by selecting an ingredient category.
2. Select the country of origin for each ingredient - if this is unknown, select 'unknown'.
3. Enter the amount in either kilograms, grams, litres or ounces/pounds (select unit of measurement from the drop down list).
4. Click the '+' button to add the ingredient to the recipe.

| Ingredient category | Ingredient | Region of origin | Amount | Unit |
|---|---|---|---|---|
| All | | Unknown | | kg |

*https://assets.plateupfortheplanet.org/carbon-calculator/)*

Funder:
The University Caterers Organisation (TUCO)

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# Packaging

- Avoiding packaging materials reduces the carbon footprint
- Phase out single-packaged items, and prefer reusable packaging, dispenser systems, and forms of packaging that are recyclable or compostable

*Production and transportation of 1 liter of beer resulted in emissions of 20 g GHG emissions if steel barrels are used, while recyclable bottles increase greenhouse gas emissions by a factor of 15 to 40 to 300-750 g $CO_2$-equivalent per liter.*

*Poore & Nemecek (2018)*

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# Climate-friendly procurement policy – What can I do?

- ✓ Use a greater share of **regional.**
- ✓ Use **seasonal and organic products** whenever possible. Guests value fresh and healthy food.
- ✓ Buy less meat (especially beef), seafood and dairy products and **offer attractive vegetarian and vegan alternatives.**
- ✓ **Reduce or avoid packaging material** and favor larger containers that can be re-used. Work with your suppliers towards less packaging waste.
- ✓ Use a **food footprint calculator** to calculate the carbon footprint of individual meals.


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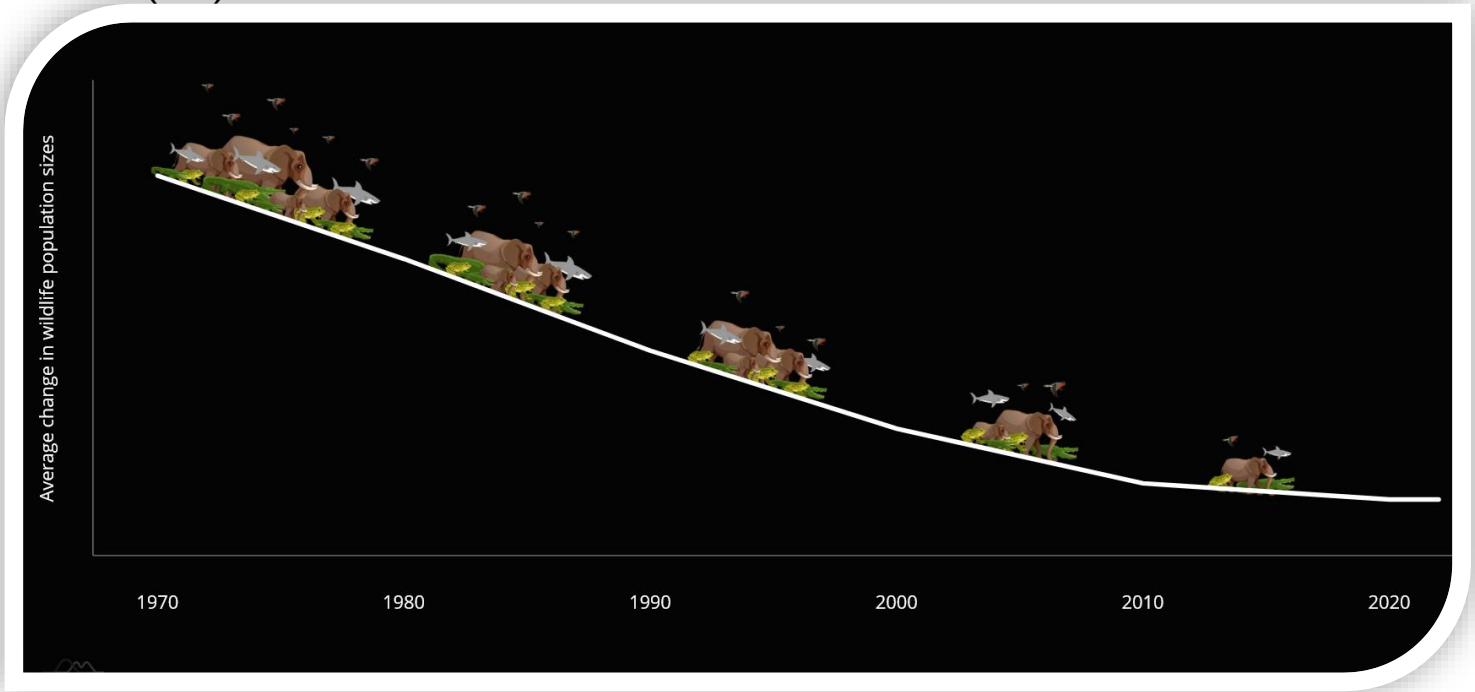
# Biodiversity loss - Endangered species

Living Planet Index (LPI): 69% decrease of wildlife since 1970

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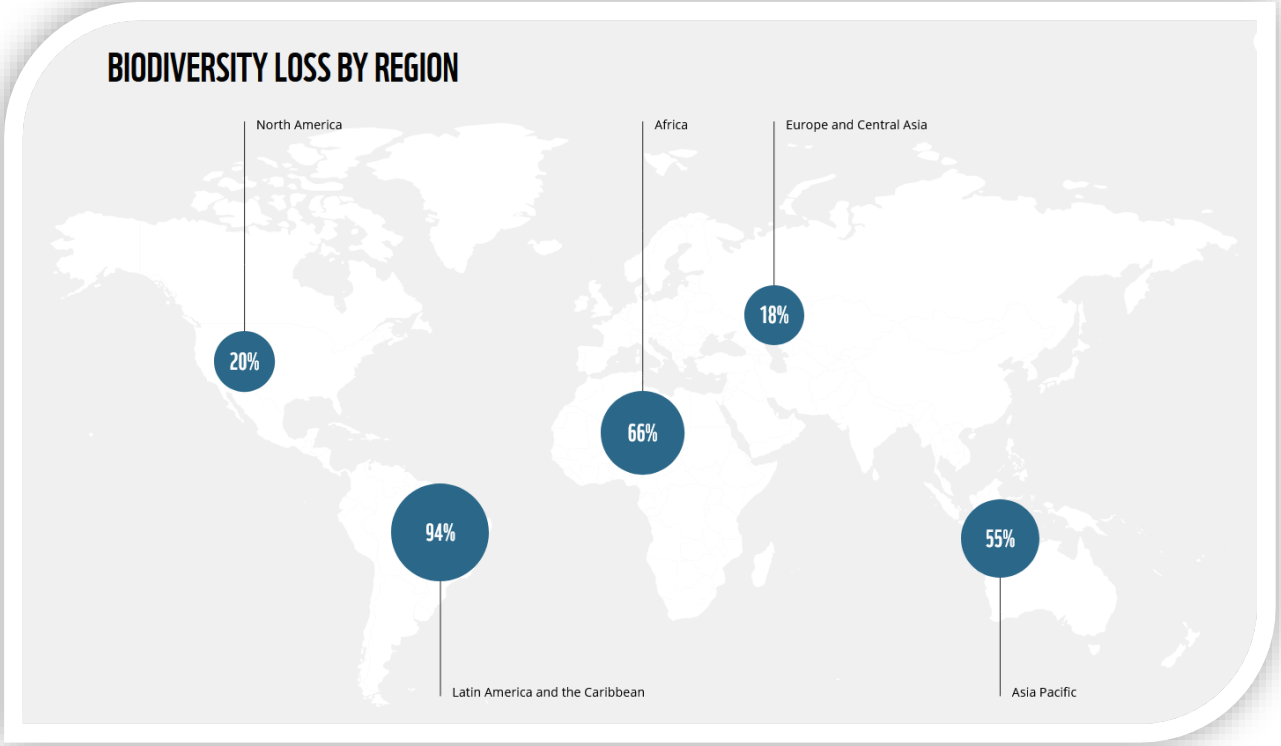
# Biodiversity loss by region

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# Supporting Biodiversity

- ✓ Purchase food produced with a lower environmental impact
- ✓ Purchase food that is produced without destroying ecosystems
- ✓ Implement measures designed to reduce food waste
- ✓ Implement measures aimed at reducing the use of animal products.
- ✓ Purchase “old and rare varieties” to promote agrobiodiversity.

*There are about 500,000 different varieties of fruits and vegetables worldwide, but only a very reduced range of "mainstream" varieties.*

*BfN (2021)*

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# Organic food

**Main principles** of organic food production:

- Use of natural **self-regulating mechanisms** (e.g. crop rotation)
- **Low** use of external **energy** (e.g. fertilizers)
- Nutrition of the **soil** instead of the plant
- Closed resource **circles**
- Use of **natural** plant protectants
- Animal **welfare**
- Organic production supports **biodiversity**

**Benefits:**

- Often healthier than conventional alternatives
- Farm workers experience a healthy working environment
- More labour intense – creates more jobs

**Remember**

Organic production supports biodiversity.

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# Organic Food - What can I do?

- ✓ Look for organic labels
- ✓ Don’t start with most expensive products
- ✓ Buy directly from the producer
- ✓ Promote (communicate) your organic products

*International Directory on Organic Food Wholesale and Supply Companies (https://www.organic-bio.com/en/labels/)*
*International Market Labeling Guide by CCOF (https://www.ccof.org/sites/default/files/2022-03/International_Labeling_Guide.pdf)*

# Best Practise: Biohotel Grafenast

- ✓ Serves exclusively organic dishes - including traditional Tyrolean dishes and modern gourmet cuisine.
- ✓ Credo "From the garden to the plate"
- ✓ Own 'Sehnsuchtsgarten' for guests and for the kitchen
- ✓ Awarded with the 'Grüne Haube'

# Endangered marine species

**Key problems:** Overfishing, illegal and destructive fishing and climate change.

- *61% of the world's marine fish stocks are fully exploited and 29% are overfished.*
- *40% of the catch, ends up as so-called by-catch in the nets.*
- *Aquaculture supports overfishing. Drugs, chemicals and excrement end up in the environment.*
- *Ocean temperatures are predicted to increase by 1-4°C by 2100 -> loss of marine habitats and species and alteration of fish stock distribution and ecosystem structure.*

*WWF, IPCC (2019)*

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# Sustainable seafood – what can I do?

- ✓ Buy seafood with **trustworthy labels**
- ✓ Use **fish guides** and apps to help you identify sustainable seafood in your country
- ✓ Add an item from **top-rated seafood to your menu**
- ✓ **Educate your staff** about sustainability and how it impacts your seafood selection
- ✓ **Learn more** about your seafood

**Labels:**

Sustainably fished

Responsibly farmed

*"Sustainable seafood comes from fisheries or aquaculture operations that minimize harmful environmental impacts, ensure good and fair working conditions, support the livelihoods of fishing communities, and provide economic benefits throughout the supply chain."*

*www.seafoodwatch.org*

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# World Wildlife Fund's (WWF) Fish Guide App




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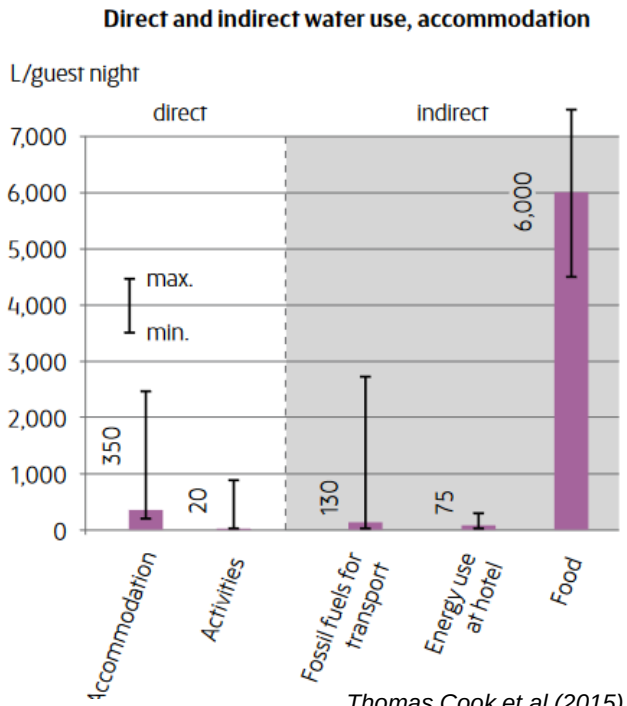
# Water Footprint - Water use in tourism




*Thomas Cook et al (2015)*

Food is by far the most important water-use factor for tourism businesses, accounting for an estimated 85% of total water consumption.

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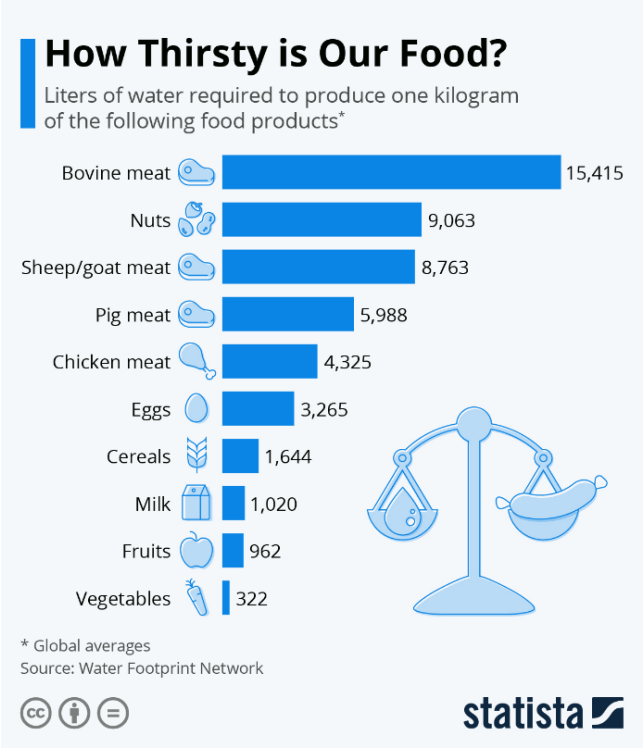
# Water Footprint of food items




The production of food needs water, to irrigate plants or sustain and feed animals. The amount depends mainly on the type of food.

**Remember**

Meat and dairy consumption is the most water-intense aspect of food.

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# Fair trade food

**Why fair trade?**

- Social factors like wages and working conditions shall be considered
- Products are often too cheap (farmers can hardly survive)

**The Concept of "fair trade"**

- Greater equity in international trade
- Better trading conditions
- Securing the rights of marginalized producers and workers

*World Fair Trade Organization: "Fair Trade is a trading partnership, based on dialogue, transparency and respect, which seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers – especially in the South."*

# Local Food

## Why purchase locally?

- ✓ Supports destination’s economy
- ✓ Creates jobs
- ✓ Better for the environment
- ✓ Protects local food cultures
- ✓ Healthier, in case of less processed or preserved

# What food is local?

When is a product a local product?
**It has to grow…**

…within a certain radius?
e.g. up to 200 km (=not necessarily the same country)

…within my country?

…within my province?


**Remember**

There is no official definiton of what local food actually means. Rule of thumb: look for the closest food supply you can get!

Source: By Own work, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=7818230; By TUBS – Own work, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=19908241; By NordNordWest, CC BY-SA 3.0 de, https://commons.wikimedia.org/w/index.php?curid=46253216

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# Seasonal food

- Often **cheaper**
- **Less pollution** from greenhouses (very energy intensive if heated) and transportation
- **Healthy**, more vitamins
- More **flavour**
- Supports **local** producers
- Enhances local **food culture**
- **Variety** throughout the year on your menu


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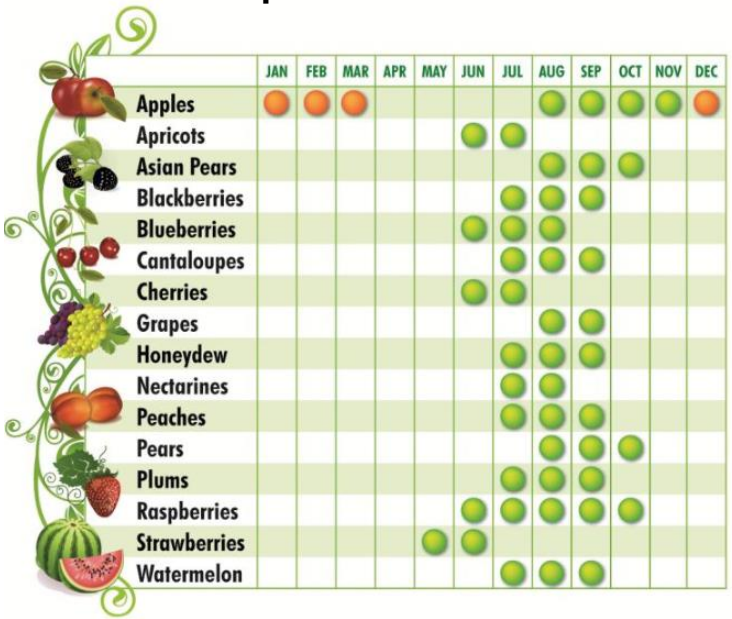
# Seasonal Food - What can I do?

- ✓ Use a seasonal calendar
- ✓ Develop a seasonal menu
- ✓ Replace frozen food with fresh seasonal
- ✓ Organize seasonal campaigns or festivals

**Example: Seasonal Calendar**



| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apples | ● | ● | ● | | | | | ● | ● | ● | ● | ● |
| Apricots | | | | | | ● | ● | | | | | |
| Asian Pears | | | | | | | | ● | ● | ● | | |
| Blackberries | | | | | | | ● | ● | ● | | | |
| Blueberries | | | | | | ● | ● | ● | | | | |
| Cantaloupes | | | | | | | ● | ● | ● | | | |
| Cherries | | | | | | ● | ● | | | | | |
| Grapes | | | | | | | | ● | ● | | | |
| Honeydew | | | | | | | ● | ● | ● | | | |
| Nectarines | | | | | | | ● | ● | | | | |
| Peaches | | | | | | | ● | ● | ● | | | |
| Pears | | | | | | | | ● | ● | ● | | |
| Plums | | | | | | | ● | ● | ● | | | |
| Raspberries | | | | | | ● | ● | ● | ● | ● | | |
| Strawberries | | | | | ● | ● | | | | | | |
| Watermelon | | | | | | | ● | ● | ● | | | |

*https://marylandsbest.maryland.gov/wp-content/uploads/Maryland-Fruit-and-Vegetable-Seasonality-Charts.pdf*

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# Sustainable food procurement - What can I do?

✓ Implement a three-category purchasing policy

**I. Buy as few/little as possible (highly energy intensive):**

- Vegetables grown in heated greenhouses
- Foods involving air transport
- Beef
- Aluminium foil
- Specific species, such as giant, king and tiger prawns, lobster (environmentally harmful)

II. **Buy less** (highly water or energy intensive):

- Beef
- Deep-sea fish (e. g. cod) or farmed carnivorous fish (e. g. salmon)
- Rice
- Seasonal foods out of season

III. **Buy more** (water/energy use)

- Locally produced foods
- Potatoes
- Grains (including pasta)
- Pork and chicken
- Foodstuffs with longer shelf-lives

*Gössling (2011)*

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# Sustainable food procurement - What can I do?

✓ Find local suppliers and build local networks

- Search for existing local food coopera-tives
- Take a study trip to best-practice hotels
- Organize local food festivals or food fairs
- Set up local food cooperatives
- Find out about local producers and their products
- Substitute imported goods with local alternatives
- Harvest from your own hotel farm and market it to your guests

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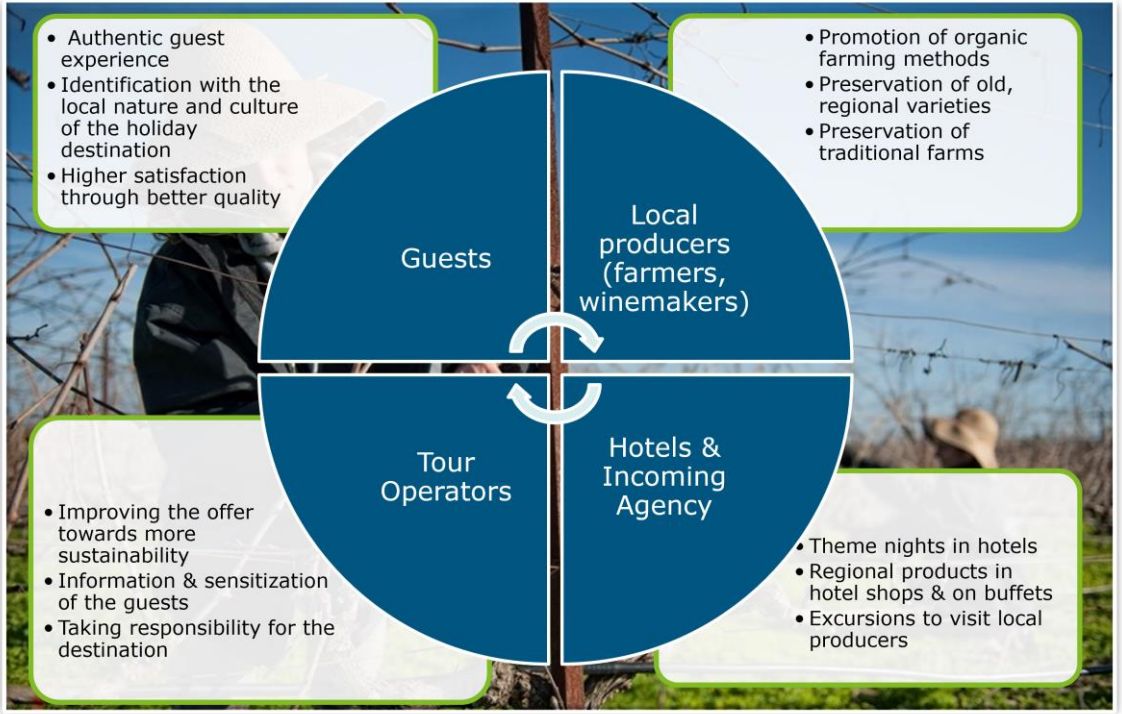
# Best Practice example „Taste Crete“ – Building local sustainable food networks




- 47 wine farmers and 25 olive farmers trained in sustainable cultivation techniques
- New sales opportunities through targeted linking of local producers with hotels
- Development of special excursions; Conducting 360 wine and olive oil tastings with sustainable products in partner hotels

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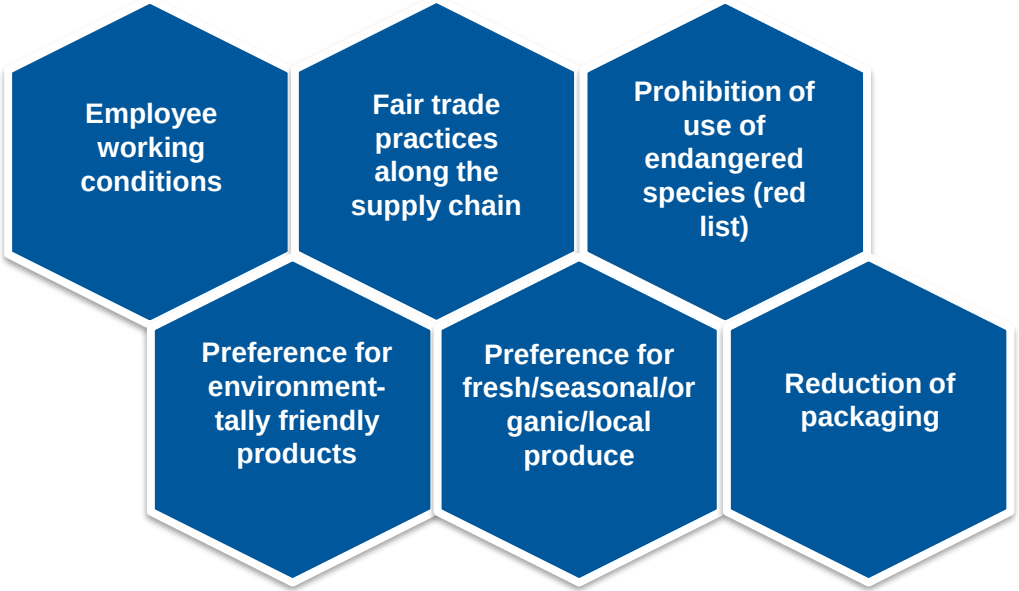
# Sustainable food procurement - What can I do?

✓ Work with your suppliers towards sustainability

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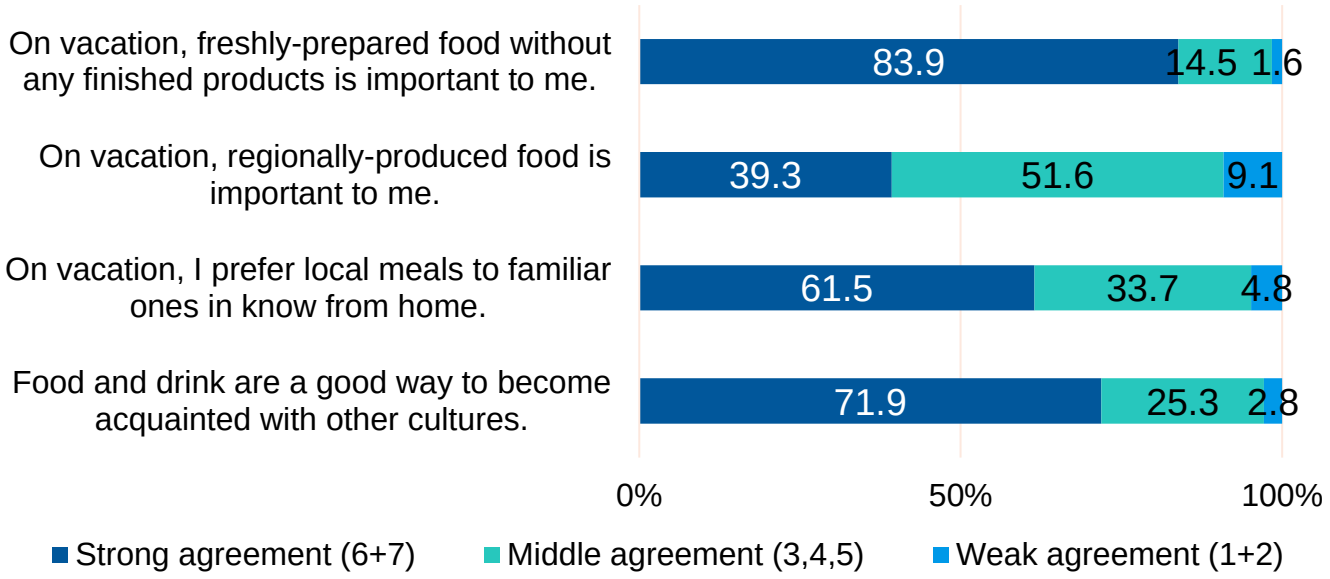
# Consumer Demand for Sustainable Food




*Lund-Durlacher et al (2016)*

# Sustainable Food in Tourism - the Way Forward

Online Training Series on
Sustainable Food in Tourism:

| | | | |
|---|---|---|---|
| **The Fundamentals** | **15 Nov.** | 2022 | 15:00 - 16:00 |
| **Procurement** | **17 Nov.** | 2022 | 15:00 - 16:00 |
| **Service and Guest Communication** | **28 Nov.** | 2022 | 15:00 - 16:00 |
| **Waste Management** | **30 Nov.** | 2022 | 15:00 - 16:00 |
| **Alimentación sostenible en el turismo** | **1 Dec.** | 2022 | 16:00 - 17:00 |

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- Ministry of the Environment, Agriculture, Food, Viticulture and Forestry Rheinland-Pfalz (2014)

# References


- Thomas Cook and FUTOURIS e.V., 2015: Water Management Manual, www.futouris.org/en/projects/wertvolles-wasser
- World Wildlife Fund's (WWF) Fish Guide https://wwf.panda.org/act/live_green/out_shopping/seafood_guides/, https://wwf.panda.org/act/live_green/out_shopping/seafood_guides/methodology/,
- WWF (2022) Living Planet Report https://livingplanet.panda.org/


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# Q&A