



**Futouris**  
Die Nachhaltigkeitsinitiative



# SUSTAINABLE FOOD

MANUAL

Published by Futouris e.V.



Editors:

Dagmar Lund-Durlacher (*MODUL University Vienna*)

Klaus Fritz (*FHWien University of Applied Sciences of WKW*)

Hannes Antonschmidt (*MODUL University Vienna*)



# TABLE OF CONTENTS

Table of contents .....	3
About this manual.....	4
Introduction: Why sustainable food?.....	5
The different stages of sustainable food production at a glance .....	5
The Futouris industry project ‘Sustainable Food on Holiday’ .....	6
<b>PART I: SUSTAINABLE PURCHASING POLICY.....</b>	<b>7</b>
Dimension I: Local food.....	8
Further action: Local networks.....	10
Dimension II: Seasonal food.....	12
Dimension III: Organic and fair food.....	14
Checklist: Sustainable purchasing policy .....	18
<b>PART II: DESIGNING A SUSTAINABLE MENU, FOOD PRESENTATION &amp; COMMUNICATION.....</b>	<b>19</b>
Food preparation and designing a sustainable menu.....	20
Food presentation.....	22
Communication.....	24
Checklist: Designing a sustainable menu, food presentation and communication .....	26
<b>PART III: WASTE MANAGEMENT .....</b>	<b>27</b>
Waste management.....	28
Checklist: Waste management.....	32
<b>PART IV: HOW TO IMPLEMENT SUSTAINABLE FOOD STRATEGIES.....</b>	<b>33</b>
Sustainable food operations.....	34
Checklist: How to implement sustainable food strategies.....	35

# ABOUT THIS MANUAL



Food sustains life; without food, humans cannot survive. It is, therefore, important for our future to protect the natural resources that supply food. However, what people eat not only matters for individuals and their environment, but for the economy and society in general. Maintaining global food supplies is also a major issue when it comes to sustainability.

At the same time, food is an important component of a holiday. For hotels and cruise ships, good food has the potential to become a competitive advantage while bad food can damage a hotel's or cruise ship's reputation for years. This is why it is of great importance for tourism businesses to manage food in a sustainable way. This guide is designed to help hotels and cruise ships move towards a more sustainable food policy.

This manual is intended as a guide for practitioners: F&B managers and their staff. It also offers general background information, practical advice and points the reader to a range of further sources.

## The structure of the guide follows the different stages of the food process chain:

- Part I: The process of food purchasing
- Part II: Preparation and design of a sustainable menu, presentation and communication
- Part III: Waste management
- Part IV: How to implement sustainable food strategies.

The manual can be used both as a source on which to base ad-hoc business decisions and as an inspiration for long-term fundamental changes.

## TYPES OF INFORMATION

The following types of information are provided in the manual:

<b>GOOD TO KNOW</b>		Facts and figures that highlight the importance of sustainable food.
<b>KEY RESULTS</b>		A summary of the findings of the project 'Sustainable Food on Holiday' (cf. p.6).
<b>WHAT CAN I DO?</b>		Tips for practitioners that can be directly applied in a hotel/cruise ship setting.
<b>BEST PRACTICE</b>		Examples of tourism businesses that have successfully implemented sustainable food policies.
<b>FIT FOR CERTIFICATION</b>		Common criteria related to food in sustainability certification schemes

# INTRODUCTION – WHY SUSTAINABLE FOOD?

Sustainable food consumption is a growing field of interest. One reason is the constantly and rapidly growing demand for food in a world whose population is expected to grow to over 9 billion people by 2050. At the same time, food producers around the world often do not get a fair share of global food trade and in many instances work under poor conditions. Additional pressure arises from the greenhouse-gas emissions caused by food production, which play a crucial role in climate change. Furthermore, the health aspect of food is a major concern, especially in modern societies. Finally, rapid socio-cultural changes in many countries raise the question of the protection of food cultures and traditions. The following figure shows five dimen-

sions of the concept of sustainable food which are especially relevant for tourism.

Food consumption is seen by most tourists as an important part of their trips and tourism often takes place in ecologically, socially and culturally sensitive destinations. Through food consumption, it is not only possible to support your health and well-being while on holiday, but also to interact directly with the ecological, social and cultural resources of a destination.

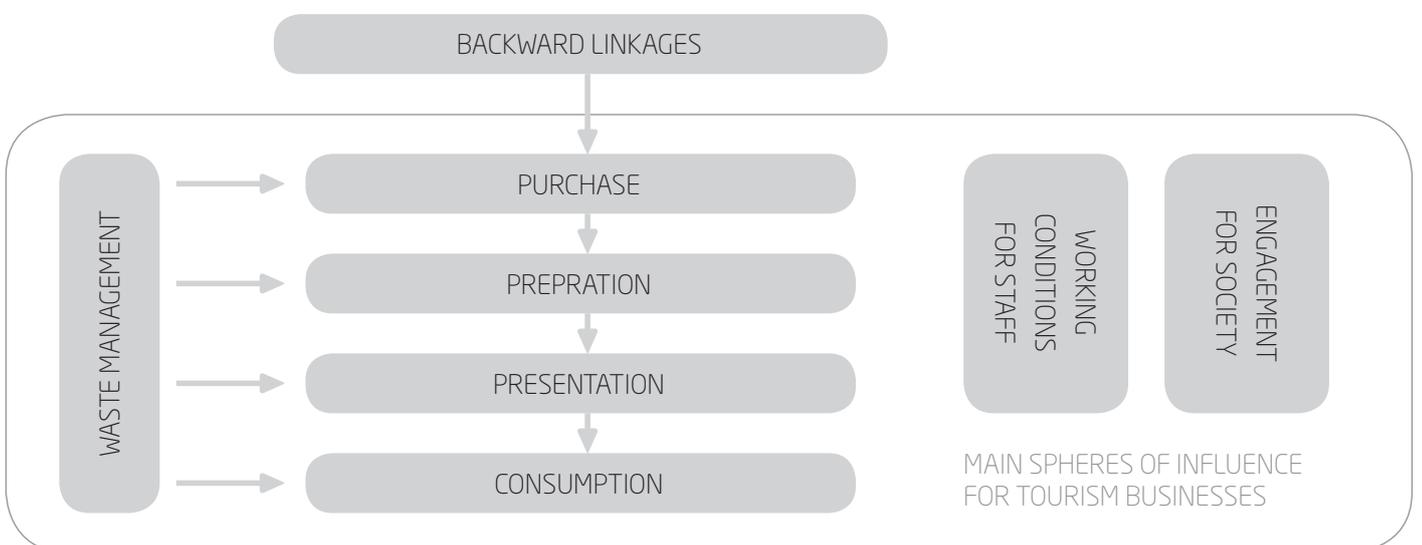
At the same time, unsustainable food consumption has the potential to cause harm for tourists, local inhabitants, and destinations in general. Over-use of scarce resources, excessive food waste and poor labour conditions are

some examples of areas, where touristic food consumption has negative consequences for a destination. Understanding and managing food in a holistic, sustainable way is therefore one key for the future success of tourism businesses around the world.



## THE DIFFERENT STAGES OF SUSTAINABLE FOOD AT A GLANCE

As the following figure illustrates, the process of sustainable food production has several stages. Not every stage can directly be influenced by tourist businesses. Their major sphere of influence is in purchasing, preparation, presentation and consumption. These are influenced by generic tasks, such as waste management, working conditions for staff or engagement with society, which apply to multiple stages. It is important for tourist businesses to maintain a holistic view of food production and to look at the relationships between the phases. This means they should assess the sustainable balance of the food on offer. For example, a product can have a high degree of sustainability when purchased, but creates a lot of food waste when prepared. A system-level perspective can prevent such a 'silo effect'.



# THE FUTOURIS INDUSTRY PROJECT 'SUSTAINABLE FOOD ON HOLIDAY'



Futouris is the sustainability initiative of the German-speaking tourism industry. In 2015, its members decided to support, develop and implement a joint-industry project to increase the sustainability of food offered on holidays. This topic is of great importance to Futouris members, as the food offered in hotels and on cruise ships is one of the main components of the holiday experience; at the same time global food production is connected to some of the most challenging sustainability issues.

**Main goals.** On the one hand, the main goal of the project was to develop a deeper understanding of what holidaymakers really think about sustainable food consumption while travelling. On the other hand, we also wanted to explore how regions, tourism businesses and other stakeholders are working on the implementation of sustainable food policies.

In order to design a well-grounded manual for tourism businesses we carried out a review of the existing literature, a quantitative consumer survey with more than 8,000 respondents, field visits in Gran Canaria, Canary Islands and Antalya, Turkey, qualitative interviews with hotel and cruise ship representatives and systematic, checklist-based assessments of best practices.



The project ran from September 2015 to March 2016 and was carried out by MODUL University Vienna and the FH Wien University of Applied Sciences of WKW in collaboration with Futouris e.V.

## PROJECT CRITERIA

Since sustainable food consumption is such a broad topic, we defined the following project criteria (in line with the idea of sustainable food production):

**Economic:** A sustainable food policy has to be as resource efficient as possible. Furthermore, the economic benefit to the local community needs to be taken into account.

**Ecological:** Crucial ecological aspects are biodiversity (e.g. protecting endan-

gered species), environmental protection (e.g. the CO<sup>2</sup> footprint), animal welfare and environmentally friendly production methods. The proportion of local, seasonal and organic food should be increased.

**Societal:** From a societal perspective, a sustainable food policy has to be inclusive and also encourage small scale, local producers and suppliers to apply for tenders. Additionally, fair working conditions have to apply to all stakeholders.

**Health:** The share of fresh, healthy and safe foods of high quality that add to the enjoyment of guests has to be raised.

**Cultural:** Sourcing authentic food has to be considered in the purchasing process. It helps to protect local food cultures and support traditional producers.

## KEY-RESULTS FROM THE PROJECT



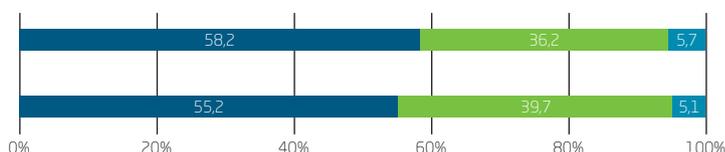
More than 55% of German package holiday travellers strongly agree, that travel companies should not only meet but exceed ecological and social standards, even if this would cause increasing prices.

■ Strong agreement (6+7) ■ Middle agreement (3,4,5) ■ Weak agreement (1+2)

Travel companies should not only meet but exceed social standards (i.e. working conditions for employees) even if the price increases for me.

Travel companies should not only meet but exceed ecological standards (i.e. responsible waste- and sewage handling) even if the price increases for me.

n=7,915





# PART I

## SUSTAINABLE PURCHASING POLICY

# DIMENSION I: LOCAL FOOD



Local purchasing supports a destination's economy both directly through payments and indirectly through the creation of jobs. Also, from an environmental point of view, local sourcing makes sense, since it lowers transport emissions and packaging waste. Local sourcing also helps protect local food cultures and might provide healthier options of less-processed and -preserved food.

The primary challenge to tourism businesses in holiday destinations is, therefore, to find access to local produce and to build up a reliable food supply. However, there is no official definition of what local food actually means. For example, the Green

Restaurant Association (USA) defines local food as food that comes from a distance of below 400 miles (643 km) away, while Viabono (Germany) regards food from less than 60 miles (96.5 km) away as local.

What is considered local also depends on the destination: for a hotel on a small island, the local radius is probably smaller than for a land-based hotel in extensively populated areas. Therefore, as a rule of thumb, you should look for the closest food supply you can get.

## WHAT CAN I DO?



### HOW DO I FIND LOCAL SUPPLIERS?

**Measure 1: Search for existing local food cooperatives** and apply for membership.

**Measure 2: Take a study trip to best-practice hotels** and benefit from their experience.

**Measure 3: Organize local food festivals or food fairs** and invite local food producers to participate and present their foods.

**Measure 4: Set up local food cooperatives** where suppliers unite and share their resources (harvest, labour, machinery and funds). Joint marketing and distribution are additional benefits of cooperatives.

## GOOD TO KNOW



### THE CLIMATE IMPACT OF DIFFERENT MEANS OF TRANSPORTATION<sup>1</sup>

Means of transportation	CO <sup>2</sup> emissions per transported ton of food and kilometer
open sea vessel	9
inland water vessel	34
train	40
truck	135
plane	2.041

## KEY RESULTS FROM THE PROJECT



### LOCAL SOURCING DEPENDS ON PRICE AND AVAILABILITY

The hotel representatives interviewed value local food and often perceive its quality to be higher than imported food. However, the two destinations investigated show very different results with respect to the use of local produce. While in Gran Canaria, a destination with limited agricultural production and relatively high prices, the purchasing of local produce is low, in Turkey, where agricultural

production is high and products are comparatively cheap, the range of local products on offer is extensive. Several hotel owners in Turkey also operate organic farms that supply their properties with fresh fruit and vegetables.

*'The potatoes from our island are excellent. In the supermarket you can buy many sorts. [...] [However], the potatoes from England are cheaper than the potatoes from the north of the island. The same happens with cheese: the cheese*

*from the Netherlands is cheaper than the cheese from here. [...]'*  
Assistant Hotel Manager from Gran Canaria

Compared to hotels, cruise ships offer only a very limited amount of local food from their landing destinations. The reason is that the small scale producers in many destinations cannot offer the quantities needed for the large number of passengers.

## WHAT CAN I DO?



**Measure 5: Find out about local producers and their products.** Guests are generally willing to pay more for authentic, typical local products. It is, therefore, useful to acquire information about local producers and their foods. Foods that are unique to the region can be marketed especially well and guests are willing to pay more for the exclusive experience. Getting in touch with local producers is, therefore, the first step towards establishing stable, trustworthy supply networks.

**Measure 6: Substitute imported goods with local alternatives.** For some ingredients, local alternatives might exist that are close to imported goods, but which are much more climate friendly. Rice production, for example, is very water-intensive and, generally, the grain has to be imported (at least in most European countries). However, for European countries a suitable substitute is for example emmer wheat which consumes less water and grows locally.



**Measure 7: Harvest from your own hotel farm and market it to your guests.** More and more hotels are establishing kitchen gardens on their estates. Although production is on a small scale, these gardens have a range of advantages: the distance to the consumer is short which guarantees low (if any) transportation costs and losses,

less packaging, freshness and a better CO<sup>2</sup>-balance. Also, food can be grown in a way that suits the business best (e.g. organically). A well-designed hotel farm can also be an additional attraction for guests and help to increase their consciousness of local sourcing and food cultures and potentially increase their willingness to pay for the food.

## KEY RESULTS FROM THE PROJECT



### TOURIST CARE A LOT ABOUT LOCAL PRODUCTS!

Local ingredients and food seem to play a key role, when it comes to customers attitudes. More than 60% of German package holiday travellers prefer local dishes to familiar ones and strongly agree that food and drink are a good way to become acquainted with other cultures.

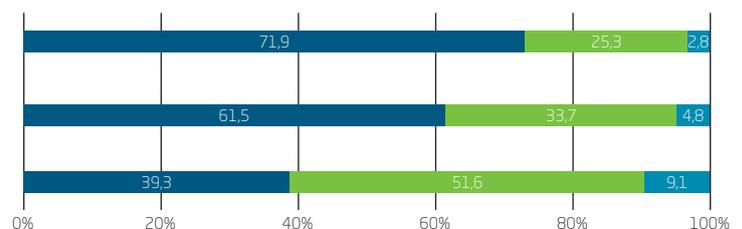
■ Strong agreement (6+7) ■ Middle agreement (3,4,5) ■ Weak agreement (1+2)

Food and drink are a good way to become acquainted with other cultures.

On vacation, I prefer local meals to familiar ones I know from home.

On vacation, regionally-produced food is important to me.

n=7,915



# FURTHER ACTION: LOCAL NETWORKS

Many hotels are aware of the importance of local food. Nevertheless, it is sometimes not easy to buy local food due to a lack of logistics, infrastructure and communication. In addition, some providers and local producers are simply too small.

Therefore, the development of local networks is of vital importance. Strong networks with local suppliers and producers help to overcome certain obstacles on the way towards a more sustainable food policy. The building of such networks is a critical and long-term process. Typically, the following three steps should be implemented:

## WHAT CAN I DO?



### HOW TO BUILD REGIONAL NETWORKS?

#### Step 1: Check overall conditions

- Define your values (what does my business stand for?) and what you want to achieve. Define a vision and mission.
- A precise idea of things you want to offer (e.g. 'Canary breakfast' or 'Spanish Tapas') helps you to build your network around these concrete products (you know what you are looking for).
- Make sure all the key stakeholders within your business are aware of the advantages of local networks. Make these advantages visible: e.g. regular network meetings, information campaigns, workshops, etc.
- Diversification of your suppliers helps you to reduce your dependence on single retailers.

#### Step 2: Network Design

- Try to build a consortium with other businesses and to find people who support your ideas.
- Identify and involve key players and other important stakeholders when building local networks. Possible key players might be:
  - Other businesses like hotels, restaurants, bars, etc.
  - Local producers and suppliers like (organic) farmers.
  - Public institutions like food cooperatives, non-governmental associations, local councils, etc.
- Build a strong network of leaders (you should consider many different stakeholders).
- You have to consider both the internal and the external dimension when building local networks. It does not make sense to build strong external networks if your colleagues and employees are not convinced of the direction you want to go in.

#### Step 3: Relationship Management

- Make sure to build a system of coordination and communication between you and the key players in your network.
- Meet your network partners on a regular basis: build strong and, above all, long-term relationships.
- All the measures mentioned above help to build long-term trust.

**Remember: You never can reach everything at the same time. Try to build your networks stepwise.**



## CYPRUS BREAKFAST

The Cyprus Breakfast Project aims to support the Cypriot hotel industry through the implementation of the Cyprus Breakfast brand. At present, 20 hotels are participating in the project (also called a certification system), managed by a project coordinator and supported and evaluated by a certification committee.



### Participating hotels must implement a range of measures, inter alia:

- Communicating the Cyprus Breakfast concept: labeling and giving information about origin, quality of food and dishes, training of service personnel and head chefs
- Offering traditional Cypriot products and recipes (the Cyprus Breakfast Portfolio)
- Offering a minimum number of Cypriot dishes
- Running a Cyprus day's special, in which an authentic Cypriot dish is highlighted every day
- Promoting local gastronomic events
- Promoting micro producers through labelling on buffets
- Supporting producers through joint projects (cooking classes, a specialty corner in the hotel)

**Impact:** The Cyprus Breakfast brand promotes authentic Cypriot cuisine and has become a criterion for differentiation from international competition. According to surveys, the initiative is greatly appreciated by guests and raises their level of satisfaction with their holidays. The surveys further show that guests who were informed about local specialties also buy and consume these products outside the hotel.

Through integration with the range of breakfast dishes and the highlighting of local foods by the hotels, as well as through multiple promotions (indication of local producers, food festivals, shops in hotels), agricultural micro producers are supported and local wealth creation is increased. Diverse training courses for the hotel staff (service staff, kitchen personnel) increase their knowledge of traditional dishes, which is taken back to their home communities and preserved for future generations. <sup>2</sup>

# DIMENSION II: SEASONAL FOOD



Buying food that is in season means a reduction in food miles and CO<sup>2</sup> emissions. Neither environmentally unfriendly means of transportation need to be used, nor are energy-intensive heated greenhouses needed to grow fruit and vegetables. In addition, fruit and vegetables that are in season are fully mature and have developed their full quota of vitamins and flavour. That is why seasonal fruit is often the healthier and tastier option. It also strengthens local producers and enhances an understanding of the local food culture.

## GOOD TO KNOW



While full colour may develop after harvesting, nutritional quality may not. For example, the total vitamin C content of red peppers, tomatoes, apricots, peaches and papayas has been shown to be higher when these crops are picked ripe from the plant.



## GOOD TO KNOW



### CO<sup>2</sup> emissions of outdoor and heated greenhouse cultivation (in kg per kg of produce)<sup>3</sup>

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
tomatoes	0,11	0,9

## KEY-RESULTS FROM THE PROJECT



### Huge differences in the amount of seasonal food offered

There are huge differences in the buffets offered by the businesses. While cruise ships and some hotels offer a standard buffet all year, others only use seasonal fruits. The main arguments against the use of a broader range of seasonal fruits and vegetables are higher prices and the preferences of guests.

Other hotels, mainly in Turkey, frequently change the food they offer according to season. Here, hotels also advertise their seasonal foods in a creative way. In April, for example, there is a strawberry festival. In this way, guests get to know which products are in season. According to the experts interviewed, so far there have been no complaints about fruits being not available at certain times of the year.

To ensure supply, head chefs in Turkey communicate frequently with their purchasing agents who inform them about the availability of fresh, seasonal produce.

## WHAT CAN I DO?



### Measure 1: Use a seasonal calendar specific to your region (see example below).

The use of calendars of seasonal produce can help you find out when products are in season and to develop seasonal meal plans.

### Measure 2: Develop a seasonal menu.

Developing different meal plans according to season not only increases variety but also helps to communicate your seasonal menus to guests.

### Measure 3: Replace frozen food with fresh, seasonal alternatives.

Food that is frozen and offered out of season incurs high energy costs for freezing and unfreezing. Serving seasonal food is, therefore, less wasteful of energy.

### Measure 4: Organize a seasonal campaign week and/or seasonal festivals.

To increase the awareness of guests about seasonal produce, you can organize campaign weeks throughout the year. The campaign should also aim to communicate the cultural meanings of seasonal food.

## GOOD TO KNOW



FRUITS	January	February	March	April	May	June	July	August	September	October	November	December
APPLE	■					■	■	■	■	■	■	■
APRICOT					■	■	■	■				
BLACKBERRY							■	■	■			
BLUEBERRY							■	■	■			
CHERRY					■	■	■					
CHESTNUT									■	■		
FIG						■	■	■	■			
GRAPE									■	■	■	
KAKI									■	■		
MELON						■	■	■	■			
PEACH					■	■	■	■	■			
PEAR						■	■	■	■	■	■	■
PLUM						■	■	■	■			
RASPBERRY						■	■	■	■			
REDCURRANT								■	■			
WATERMELON						■	■	■				
STRAWBERRY				■	■	■						

The seasonal calendar for Tuscany (Italy) shows that tourists can enjoy a broad range of local fruit nearly all year round. While some fruits (apple, pear) can be a regular dish, others (e.g. blueberries, watermelons) should be offered as seasonal highlights in the context of special festivals.

# DIMENSION III: ORGANIC AND FAIR FOOD

The main principles of organic agriculture are the low use of external energy (e.g. through fertilizers), use of natural self-regulating mechanisms (e.g. crop rotation), nutrition of the soil instead of the plant, closed resource circles, use of natural plant protectants, and animal welfare. Organic products are often healthier than their conventional alternatives. Additionally, organic production is more labour intensive and creates more jobs than conventional farming.

Social conditions (e.g. wages, working conditions, etc.) also have to be considered when buying food. Unfortunately, small agricultural producers often do not possess enough power to demand acceptable prices for their products. This is where the concept of fair trade comes into play. The World Fair Trade Organization defines Fair Trade in the following way: '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'

## KEY-RESULTS FROM THE PROJECT



### FAIR TRADE AND ORGANIC PRODUCTS ARE NOT YET ON THE AGENDA

The fair trade concept is largely unknown to hotel representatives. Some hotels, however, check if their suppliers comply with social regulations (for example, minimum working age, social security).

Organic products also play only a minor role. In the hotels which offer organic food, the share varies between 2 and 10% of the total. A reason for the low percentage is mainly higher cost. Additionally, there is uncertainty about organic certification.

Some of the hotels which offer organic food do not label them at all, others indicate them in the normal buffet. Only one hotel offers a specialised organic corner. Therefore, buying fair and organic produce and communicating this to your customers can be a competitive advantage.

## FIT FOR CERTIFICATION



The majority of the hotels surveyed had one or more CSR or Green certification systems in place. Certified hotels display a higher level of sustainable performance because they have to meet standard criteria.

### Certification schemes that evaluate the sustainability of the products purchased, focus on the following criteria:

- Percentage of products sourced within a certain radius
- Percentage of (certified) organic products
- Percentage of (certified) fair trade products
- Avoidance of endangered species (esp. seafood)

Examples of different labels and certificates:



ISO 14001

## GOOD TO KNOW



Farm workers on conventional farms are among those most affected by the use of pesticides, herbicides and other toxins. The occurrence of serious disease is related to heavy exposure to toxic sprays. Organic farming means workers experience a healthy working environment, with the direct benefits of cleaner air, water and soil.<sup>4</sup>

## SUSTAINABLE PURCHASING POLICY - ORGANIC AND FAIR FOOD

### Measure 1: Look for fair trade and organic labels.

There are multiple labels that identify products as fair trade. Fairtrade International is the oldest, best-known and main fair trade label, which represents approximately 80% of the certified fair-trade sales across the world. The label guarantees fair prices and working conditions that are checked, inter alia, through regular audits, interviews and the review of documents (see below)<sup>5</sup>.

There are also multiple labels on the market that certify organic products. Since 2010, the public organic certification label of the European Union is mandatory (see below)<sup>6</sup>. Another well-established label is the Demeter Certification whose requirements exceed those of the EU-label.



### Measure 2: Don't start with most expensive products.

One main argument against organic food is that it has a higher price. While this is true, especially for meat products, there are other ingredients (e.g. flour, potatoes) where price differences are much lower.

### Measure 3: Buy directly from the producer.

Food that is bought directly from the farm or an agricultural cooperative is often cheaper than when bought from a wholesaler. For regular deliveries you can also negotiate contracts directly with the producers.

### Measure 4: Advertise your organic products.

Studies show that consumers value organic food and are even willing to pay more for it. Therefore, if you offer organic products, make them stand out from the crowd. Present your organic food separately to gain customers' attention e.g. by introducing specific organic corners.

## BEST PRACTICE



### THE ORGANIC FARM OF ROBINSON CLUB AGADIR

**Measures:** When the club opened, an ecological agro-project was set up at the same time, with a club-owned organic farm and an organic herb farm. This covered an area of 1,000 m<sup>2</sup> according to purely biodynamic procedures. In the beginning, local plants were cultivated, such as sweet potato, pumpkin, beans, tomatoes, aubergines and coriander, and a herb garden was created. Today, there is a variety of non-local salads, herbs, vegetables and fruits that are difficult to acquire otherwise (exotics like lemon grass, Thai basil, but also rhubarb, radish, watercress and violet cauliflower). The hotel-owned organic garden supplies fresh organic vegetables and organic fruit for the hotel kitchen. The guests can identify these from two in-house logos which show the items

on the buffet which are from the garden or are organic. The gardeners receive an apprenticeship in organic agriculture: 15 gardeners have been trained since 2008.

**Impact:** The guests are offered fresh, organic local vegetables and fruits with a guarantee of origin. The gardeners acquire knowledge of organic farming which they transmit to their home communities. Through organic farming they save money on expensive fertilizer and they can get higher prices for their harvest. In this way, organic agriculture gains increasing importance for local communities.<sup>7</sup>





## FURTHER MEASURES FOR A SUSTAINABLE PURCHASING POLICY

### Measure 1: Implement a three-category purchasing policy<sup>12</sup>

#### Buy as few/little as possible:

- Vegetables grown in heated greenhouses (highly energy intensive)
- Foods involving air transport (highly energy intensive)
- Specific species, such as giant, king and tiger prawns, lobster (environmentally harmful as fishing contributes to mangrove destruction)
- Imported beef (highly energy intensive)
- Aluminium foil (highly energy intensive)

#### Buy less (all 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

### Buy more (comparably little water/energy use involved):

- Locally produced foods, if transported over short distances
- Potatoes
- Grains (including pasta)
- Pork and chicken
- Foodstuffs with longer shelflives

### Measure 2: Work with your suppliers towards sustainability

Most tourism businesses work with a range of both local and foreign suppliers of different foodstuffs. Their sustainability should be reviewed regularly. One way might be the use of supplier scorecards that assess the suppliers not only from an economic (price) point of view but also take into account environmental, social, health and cultural considerations. When price differences are marginal, the supplier with the better sustainability performance should be chosen. Furthermore, you should also discuss sustainability issues with your

suppliers, for example:

- Employee working conditions
- Fair trade practices along the supply chain
- Prohibition of the use of endangered animal and plant species (red list)
- Preference for environmentally friendly products
- Preference for fresh/seasonal/organic/local produce

## GOOD TO KNOW



### MANY MARINE SPECIES ARE ENDANGERED

30% of fish populations in the world's ocean are overfished and 57% are facing extinction. 40% of the catch, including sharks, sea birds, turtles, dolphins and whales, ends up as so-called by-catch in the nets. Aquaculture supports overfishing as well, since the feed often consists of fish meal or fish oil, extracted from wild fisheries. Furthermore, through open aquaculture, drugs, chemicals and excrement end up in the environment<sup>8</sup>. This is why the World Wide Fund for Nature (WWF) has issued purchasing guides for different countries around the world that recommend which fish and seafood to choose and which to avoid.

The different guides are available at: [wwf.panda.org/how\\_you\\_can\\_help/live\\_green/out\\_shopping/seafood\\_guides](http://wwf.panda.org/how_you_can_help/live_green/out_shopping/seafood_guides)



### FOOD IS A MAJOR SOURCE OF WATER CONSUMPTION

Food is by far the most important water-use factor for tourism businesses, accounting for an estimated 85% of total water consumption. The majority comes from indirect water usage, i.e. the volume of freshwater used for the production of food. The amount of water needed varies considerably. For example, production of one kilogram of tomatoes requires 214 litres of water, while one kilogram of beef needs 15,500 litres<sup>9</sup>.



### TOP RESOURCES FOR FURTHER INFORMATION

- Report on the Cyprus Breakfast project that can serve as an implementation guideline for similar projects [csti-cyprus.org/wp-content/uploads/2014/03/Cyprus-Breakfast\\_-Report.pdf](https://csti-cyprus.org/wp-content/uploads/2014/03/Cyprus-Breakfast_-Report.pdf).
- Green Public Procurement Training Toolkit – Catering and Food. Good example of a supplier scorecard [ec.europa.eu/environment/gpp/pdf/toolkit/food\\_GPP\\_product\\_sheet.pdf](https://ec.europa.eu/environment/gpp/pdf/toolkit/food_GPP_product_sheet.pdf).
- Responsible Food Purchasing Guide for the hospitality sector. [apps.unep.org/publications/index.php?option=com\\_pub&task=download&file=-Responsible\\_food\\_purchasing\\_Four\\_steps\\_towards\\_sustainability\\_for\\_the\\_hospitality\\_sector.pdf](https://apps.unep.org/publications/index.php?option=com_pub&task=download&file=-Responsible_food_purchasing_Four_steps_towards_sustainability_for_the_hospitality_sector.pdf).
- Sustainable Food Purchasing Guide with implementation guidelines and multiple checklists and best-practice examples. [www.sare.org/content/download/72014/1025843/Sustainable\\_Food\\_Purchasing\\_Guide.pdf?inlinedownload=1](https://www.sare.org/content/download/72014/1025843/Sustainable_Food_Purchasing_Guide.pdf?inlinedownload=1)>Download\_File

# CHECKLIST – SUSTAINABLE PURCHASING POLICY

Measure	Implementation?		
	++	+/-	--
<b>Local and seasonal food</b>			
An increasing number of imported goods have been substituted with local alternatives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We harvest at least some products (i.e. herbs) from our own hotel farm/garden.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We occasionally organise seasonal campaign weeks to increase awareness of seasonal produce of guests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We adapt our menus to the season (e.g. a spring menu).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The proportion of seasonal produce is rising or has already reached a certain percentage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We attend local food festivals or food fairs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We are in contact with local producers and we incorporate their local products into our daily menu planning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Organic food and fair trade</b>			
We buy as little as possible unsustainable food (e.g. beef, air-transported produce, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We look for fair trade and organic labels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We are introducing a more sustainable food policy step by step.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organic food is an important part of our menu.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We care about fair trade practices along the supply chain and assess our suppliers accordingly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Building local networks</b>			
We are part of local networks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We are searching for existing local food cooperatives and applying for membership.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We organise study trips to best practice hotels and try to benefit from their experience.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strong local key players are also involved in our networks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We are not dependent on a single supplier or retailer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We meet our network partners on a regular basis and have built strong relationships.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We use supplier scorecards to assess suppliers not only from an economic (price) point of view but also take into account environmental, social, health and cultural factors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## PART II

# DESIGNING A SUSTAINABLE MENU

# FOOD PRESENTATION AND COMMUNICATION

# FOOD PREPARATION AND DESIGNING A SUSTAINABLE MENU

If you want to implement a successful sustainable food policy the planning and composition of menus is of vital importance. You have to fulfil the clients' needs, while meeting your own goals. At the same time it is a very challenging task to consider all the different aspects of sustainability. Therefore, it is of vital importance you initiate the process of implementing a sustainable food policy gradually and to change your menu step by step.

Beef and other meats for example, are very unsustainable elements of a menu, since their production results in a high level of CO<sup>2</sup> emissions (cf. CO<sup>2</sup> emissions of different components below). Reducing meat dishes by banning them totally from the menu may not be an option, but as the measures below show, there are a lot of ways to reduce unsustainable food components gradually and to replace them with more sustainable alternatives.

Furthermore, when it comes to sustainable menu planning you have to not only think about the ingredients you use, it is also important to think about water and energy usage during food preparation as well as the food waste you will produce. In fact, no other single decision in the professional kitchen is as important as the preparation and the composition of menus. It is the point where one decides, what is going to be cooked when and for whom?

## GOOD TO KNOW



### WHY FRESH FOOD IS BETTER

#### Benefits for the environment

Fresh, local foods help to reduce food miles.

#### Better Ingredients

You can use ingredients of high quality.

#### For your health

Convenience foods contain a lot of fat, salt and sugar.

#### More cost efficient

Different studies show that freshly prepared meals are more cost efficient.

#### Greater sensory appeal

The taste of freshly prepared meals is different and unique.

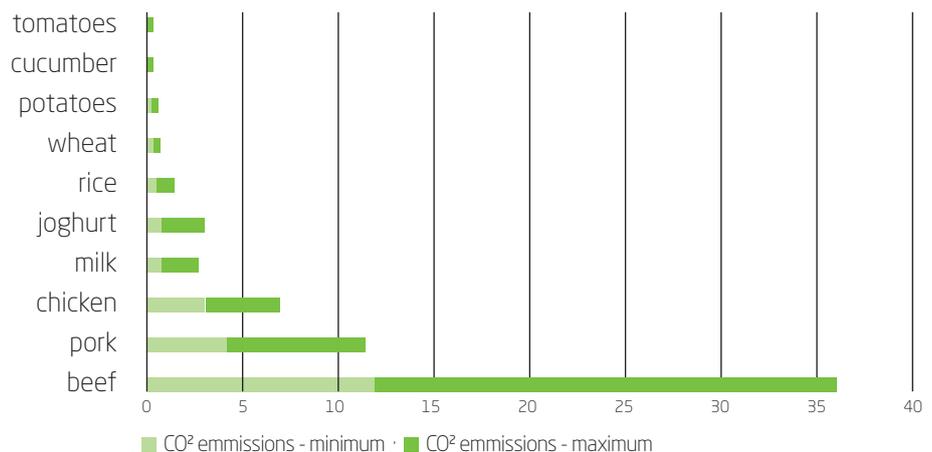
#### More variety

If you cook with fresh ingredients, it is easier to prepare a wider variety of dishes.

## GOOD TO KNOW



### CO<sup>2</sup> EMISSIONS IN KG OCCURING DURING PRODUCTION OF 1 KG OF DIFFERENT TYPES OF FOOD<sup>10</sup>



## KEY-RESULTS FROM THE PROJECT



While on vacation "the preparation of fresh food without using finished products" is the most important factor for German package holidaytravellers (84% totally agree, 15% agree). In addition more than 87% claim that "fresh food" is a very important factor in their daily grocery shopping.

■ Strong agreement (6+7) 
 ■ Middle agreement (3,4,5) 
 ■ Weak agreement (1+2)

On vacation, freshly-prepared food without any finished products is important to me.

n=7,915



## FOOD PREPARATION AND DESIGNING A SUSTAINABLE MENU



### Measure 1: Put an emphasis on the composition of your menus

- Try to vary your menu, include seasonal highlights.
- Introduce food weeks or months (e.g. 'tomatoes in the spotlight', 'red fruits go yellow', 'pumpkins and colleagues', etc.)
- Consider local, seasonal and organic foodstuffs as well as fair-trade products.
- Plan your purchases to avoid waste.
- Try to cook fresh dishes without using processed and convenience food. Focus on whole, minimally processed foods (higher in nutritional value, less likely to contain high levels of added sugars, trans-fats, etc.) However, processing can also be used to extend the season of local and sustainably grown produce.
- Try to include special occasion food, for example 'sundays lunch' or 'easter treats'.
- It is important to focus on specific achievements and to set priorities.

### Measure 2: Think about the ingredients you use

- Think about produce first and choose your ingredients carefully. Focus on fruits and vegetables; try to achieve a great diversity across all meals and snacks. This allows you to vary your menu and to adapt it to the season and availability of local food.
- Make the food appealing to your customers by mixing green vegetables and colourful fruits and vegetables.
- Implement plant-based culinary strategies to shift the menu to mostly plant-based foods and put dishes on the menu that use less meat and more vegetables.
- Use sustainable, certified fish.
- Use certain 'flavour strategies' and try to send messages with flavour. Work with spices, herbs, citrus and other aromatics and flavour-building techniques.
- In-season fruits and vegetables, for example, have unbeatable flavours.

### Measure 3: Think about efficient resource use when you prepare your food

- Use more energy-efficient cooking routines such as à-la-minute preparation instead of keeping a lot of food stuff heated for a long time (helps to save energy).
- Purchase energy from renewable sources (low emissions, low water use).



# FOOD PRESENTATION AND COMMUNICATION



Once you have designed a sustainable menu, it is important to think about the best way to present your food. An appealing way of presenting your food has an impact on whether your clients will like the more sustainable menu. In addition, a good information dissemination policy it helps to build trust between you and your clients and to create value and brand identity: once your clients have realized that they will receive certain information, they appreciate it. On the other hand, limiting or restricting information is not very helpful. If you try to avoid – hot-button – consumer issues, such as calories, trans-fats, processing methods, etc., your clients might become upset and if they are really interested, they will find out anyway. Furthermore, a thought-through way of presenting your menu also helps to reduce waste and leftovers and, subsequently, to reduce your costs. When it comes to the best way of presenting your menu, the measures below can be helpful.

## WHAT CAN I DO?



### HINTS FOR THE PERFECT PRESENTATION

**Measure 1: Think of the size and scope of your dishes (this is one of the most important elements of sustainable food presentation)**

- Reduce portion and plate sizes at buffets, with more regular replenishment (this reduces waste) and emphasise quality over quantity. The reduction of plate sizes is also important in terms of customer-satisfaction: it is much easier to make a small plate look full.



- Try to create a culinary adventure for your clients by presenting your sustainable menu in an attractive way: include colourful and fresh-looking ingredients.

### Measure 2: Highlight important dishes

- Arrange buffets so that more sustainable foods are at the centre.
- Present as many as possible attractive vegetarian and/or vegan alternatives.
- Install special areas (e.g. table with organic food and/or local specialities).
- Play with the colour and texture of dishes (use complementary colours, red peppers in a green pea soup, etc.). This helps to make them look special and to draw your guests attention to them.
- Put an emphasis on the garnishing of your dishes.

### Measure 3: Create a pleasant eating atmosphere

- People – especially while on vacation – want to enjoy their meal in an appropriate environment.

The design of a pleasant dining environment helps to make them feel comfortable.

- Decorate the tables properly (if possible, you can put additional information about your sustainable menu on each table).
- Present raw ingredients next to certain dishes (for example, local tomatoes next to spaghetti with tomato sauce). This helps to foster an understanding among your guests of the origin of the foods you use.
- Set up service and communication strategies for your staff. They have to be very well informed and to be aware of the importance of sustainable food.
- Train your staff to recommend sustainable dishes (especially for à la carte restaurants but also for buffets).
- Finally, more sustainable menu formats will give your guests a total culinary and dining experience; they will remember and tell friends.



## KEY-RESULTS FROM THE PROJECT



### SMALLER PORTIONS HELP TO REDUCE WASTE

Portion size is one of the issues people talk about when asked about food waste. Offering different meal sizes can make a real difference to the amount of food left on a plate. It might be helpful to offer different sizes to your clients. Moreover, more than 55% of German package holiday travellers strongly agree to accept smaller portions if this helps to reduce scraps.

■ Strong agreement (6+7)
 ■ Middle agreement (3,4,5)
 ■ Weak agreement (1+2)

To reduce scraps, smaller portions can be offered on vacations.



n=7,915

# COMMUNICATION



Beautiful presentation of food is ineffective if it is not accompanied by communication. You have to communicate what you have changed to make sure your guests understand. As research has shown, many change processes (e.g. the change to a more sustainable menu) do not work because of a lack of communication.

In addition, communication helps to develop a positive image of the business for stakeholders and, especially, among guests. Subsequently, developing a more sustainable menu creates a lot of marketing opportunities. You can make your menu and the food experience for your guests unique by creating a more sustainable menu, which is the main reason why communication is so important.

To keep your clients well informed, it is also important to prepare a mission statement: let your clients know the goals you want to achieve. There is a wide range of possible issues when it

comes to communicating with guests about sustainable food. As mentioned above, you can inform clients about the origin and seasonality of the food you use, the way the food was produced or the ingredients and nutritional values of your dishes.

Furthermore, animal welfare and the protection of certain species are immensely important issues when it comes to sustainable food and communication strategies. There are many species that are under severe threat of extinction, including most kinds of tuna. Non-governmental organisations like the World Wide Fund for Nature (WWF) regularly publish sustainable purchasing guides in different languages. Unfortunately the list of species whose consumption is no longer sustainable grows ever larger. As a consequence, even more emphasis has to be put on the communication of such issues (i.e. communicate on the buffet that the offered kind of fish is from a sustainable source.)

## KEY-RESULTS FROM THE PROJECT

### TOURISTS WANT TO RECEIVE INFORMATION

Information seems to be important for tourists. They want to be informed about the origin and production of the food and drinks they consume (30% strongly agree). In addition, tourists also want to be informed before the start of their vacation. About 28% strongly agree that travel companies should provide detailed information about the range of food and drinks on offer. Furthermore, almost 50% strongly agree that hotels or cruise lines that offer sustainable food should be indicated in travel catalogues or online. As a consequence, food could be seen to have an influence on tourists' booking behaviour.

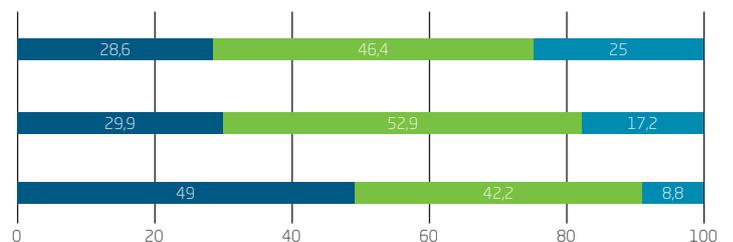
■ Strong agreement (6+7)  
 ■ Middle agreement (3,4,5)  
 ■ Weak agreement (1+2)

Before the start of a journey, travel companies should provide detailed information about the range of food and drinks.

On vacation, I like to be informed about the origins and production of food and drink (i.e. notes in the menu or signs at the buffet)

Hotels or cruise lines that offer sustainable food should be marked accordingly in travel catalogues or online.

n=7,915



## PROVIDE INFORMATION ABOUT THE MENU.

**Measure 1: Focus on certain information**, e.g. food production methods, sourcing strategies, calorie and nutritional values, labour practices, animal welfare, environmental impact, etc.

**Measure 2: Create informative food tags** on the buffet including the main ingredients of the dishes (this will prevent trials and food waste), dietary and allergen information (following any regulatory framework that is in place), vegan/vegetarian, organic and fair trade food.

**Measure 3: In addition, put information on the tables** in the dining room or on digital displays if available.

**Measure 4: Use the technique of story telling** (e.g. name specific farms and reference growing practices like organic production) rather than actively marketing single attributes.

**Measure 5: Try to inform your guests in a positive way.** Your guests are on vacation and want to enjoy their stay. Therefore, it is very important to create a positive environment. It is important not to exaggerate and to over-dramatize when it comes to sustainable food; your clients should not feel guilty or link their food experience with negative emotions.

**Measure 6: Organise special weeks (days)** as part of your communication strategy.



## TOP RESOURCES FOR FURTHER INFORMATION

- Principles of healthy and sustainable menus, Menus of change: [www.menusofchange.org/news-insights/resources/moc-principles/#a](http://www.menusofchange.org/news-insights/resources/moc-principles/#a)
- Sustainable food policy: [www.sustainablefoodpolicy.org](http://www.sustainablefoodpolicy.org)
- Unilever World Menu report: [www.ufs.com/company/media-center/world-menu-report](http://www.ufs.com/company/media-center/world-menu-report)
- Unilever, the basics of food plating: [www.unileverfoodsolutions.com.sg/our-services/your-menu/food-presentation](http://www.unileverfoodsolutions.com.sg/our-services/your-menu/food-presentation)

# CHECKLIST – DESIGNING A SUSTAINABLE MENU FOOD PRESENTATION AND COMMUNICATION

Measure	Implementation?		
	++	+/-	--
Sustainable menu planning and food preparation			
We vary our menu and include seasonal highlights.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At least once a month we offer special-topic weeks (e.g. 'tomatoes in the spotlight', 'red fruits go yellow', 'pumpkins and colleagues', etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We use local, seasonal and organic foodstuffs as well as fair-trade products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We cook fresh dishes without using processed and convenient foods.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We think about produce first and choose our ingredients carefully.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our menu focuses on fruits and vegetables and we offer a high degree of diversity across all meals and snacks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We use energy-efficient cooking routines to save water and energy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Food presentation and communication			
We offer reduced portions and plate sizes at buffets, with more regular replenishment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We present our sustainable menu in an attractive way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We arrange buffets so that more sustainable foods are at the centre.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We present as many as possible attractive vegetarian and/or vegan alternatives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have created a pleasant eating atmosphere for our guests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have implemented an active information policy for our food.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our information focuses on certain issues and is structured in a clear way (not giving all details at the same time).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We highlight specific producers and growing practices (i.e. by using story-telling).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We inform our guests in a positive way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# PART III

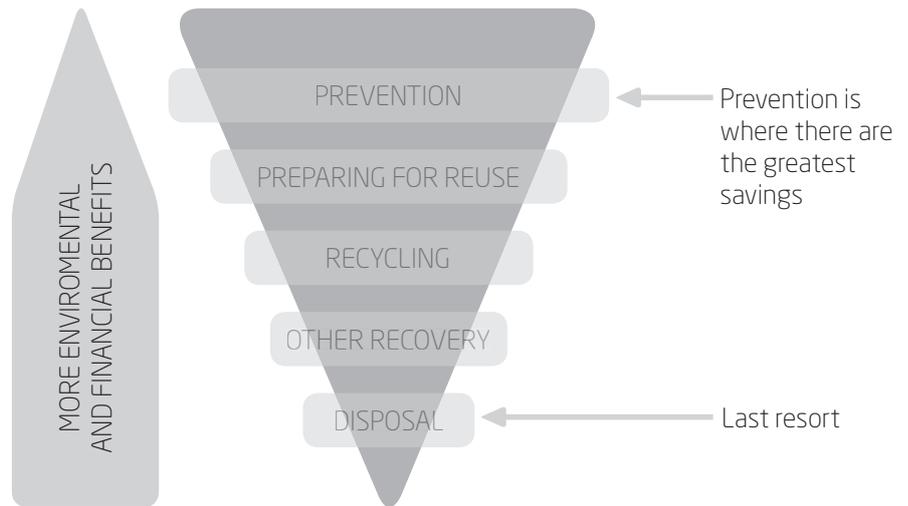
## WASTE MANAGEMENT

# WASTE MANAGEMENT

About 20% to 60% of all food purchased by the hotel and restaurant industry is wasted. This is not only poor cost management but also highly questionable from an ethical and social point of view considering there are almost a billion malnourished people in the world. Moreover, food waste may also harm the environment as food decomposition in landfills gives off methane gas which contributes greatly to climate change. Food waste typically arises from spoilage during storage, during meal preparation and buffets, as well as customer plate waste.

## THE FOOD WASTE HIERARCHY<sup>11</sup>

The food waste hierarchy shows cost-saving opportunities for businesses. The preferred solution is to prevent food waste from occurring in the first place. Two food-waste categories have to be considered: food which can still be eaten, reused, redistributed to people or used as animal feed if in compliance with legislation; and, non-edible food waste for further treatment in order to generate compost, energy or heat. Using landfill for food waste is the least attractive option.



## WHAT CAN I DO?



### Measure 1: Monitor and measure food waste.

To identify potential savings it is important to know where, when, why and how much waste is being produced during day-to-day operations. The data can then be used to identify practical actions that will lead to waste reduction and cost savings.

#### Steps to measure your food waste:

1. Over a set period of time **segregate food waste** into separate bins for spoilage, preparation, buffet and customer plate waste.
2. **Weigh or count the food waste bins** at the end of each monitoring period. Use a waste tracking sheet such as [www.wrap.org.uk/sites/files/wrap/Food\\_Waste\\_Tracking\\_Sheet\\_v1.1\\_0\\_050115.pdf](http://www.wrap.org.uk/sites/files/wrap/Food_Waste_Tracking_Sheet_v1.1_0_050115.pdf).

The results will provide the base line against which the impact of changes in day-to-day practices can be compared.

3. Monitor **what type of food is left** on the buffet and returned on the customers' plate. Customer feedback might help to determine the reason why it was not eaten. It may even indicate that the menu design needs to be changed.

Food waste measurement will identify how much, what and where waste is being generated, then it will be possible to look at the underlying causes in order to prevent it. Set waste reduction targets and engage your staff and motivate them to take action. Raising the general awareness of food waste and its cost automatically reduces the level of waste.

### Measure 2: Smart menu planning is the key to waste prevention

Optimise your menu planning and remember more complication generates more waste. Careful menu planning may prevent waste in many ways:

- Design new menus with food waste reduction and packaging reduction in mind.
- Plan smart menus based on the reservation forecasts. Consider the number, demographics (age, nationality) and past food choices of guests.
- Keep the range of ingredients down, so that more of each ingredient is used leading to greater stock turnover.
- Use perishable items in more than one menu option so they become used up faster.

- Buy small quantities of short-shelf-life items, or use ingredients with a longer shelf life.
- Use a computer-based system for recipe management.
- Maximise the use of ingredients
- e.g. using a whole bunch of basil for pesto or trimming-based leftovers (for sauces, soups, jams etc.); see also the Love Food Hate Waste Campaign ([lovefoodhatewaste.com](http://lovefoodhatewaste.com))
- Give your customer the right amount of choice. The more items there are on the buffet or menu, the greater the number of ingredients and the higher the potential for waste.
- Redistribute and reuse food items that have not been sold (animal farms).

## BEST PRACTICE



### THE BUSINESS CASE FOR MONITORING FOOD WASTE<sup>11</sup>

The Crieff Hydro Hotel, a 4-star, 250-bedroom leisure resort in Perthshire, Scotland, has measured food waste in its main restaurant. The hotel identified the breakfast and lunch buffet as the areas with the highest level of food waste. Subsequently, the hotel has reduced food waste through adopting a range of measures:

- Reduced buffet container sizes
- Smart production planning and greater use of small batch preparation

- Greater staff engagement and the setting of weekly food waste reduction targets

After 8 weeks, in just one restaurant, food waste costs were reduced by around 43% and food weight by 31%. This equates to an annual saving of around 11.5 tonnes of food, with approximately cost savings of £51,750. More information on [www.wrap.org.uk/sites/files/wrap/Crieff%20Hydro%20case%20study.pdf](http://www.wrap.org.uk/sites/files/wrap/Crieff%20Hydro%20case%20study.pdf)

Tip: Review your ingredient lists <sup>11</sup>

- Focus on menu items that are popular with your customers.
- Use common recipes but with small variations for interest.
- Keep recipes simple, focus on ingredient quality and cooking.
- Develop dishes using some ingredients from other recipes.

## BEST PRACTICE



### COMPUTERIZED RECIPES

Many chefs use computer-based systems for recipe management. Software can scale and rescale recipes and their ingredients immediately. If a core recipe is on the computer, the system can produce scaled recipes for each day based on the guest forecasts. Knowing the right amount of ingredients prevents unnecessary food waste by allowing for more efficient purchasing decisions.

## GOOD TO KNOW



#### Crab Salad

1 dish  
8 ingredients  
4 cooking processes  
20 mins. chef time



#### Trio of Crab

1 dish  
23 ingredients  
10 cooking processes  
55 mins. chef time

As the example of the crab salad and the trio of crab shows, more sophisticated recipes are not necessarily more popular. Interestingly, the crab salad was preferred over the trio of crab, although it was much easier to prepare. In addition, it was lower in terms of purchase price and generated a higher margin and less waste as it uses fewer ingredients.<sup>11</sup>

## Measure 3: Preventing spoilage

Optimising your purchasing procedures is the first step towards preventing spoilage. If you order the right amount of the right types of food then you will have less waste and accrue more cost savings. The measures below can be taken to prevent spoilage.

- Establish good purchasing procedures based on good stock control and forecasting (e.g. use a tool such as a stock control and purchasing list).
- Work towards 'just-in time' delivery rather than pre-ordering in quantity.
- Apply a first in-first out method of using up stock and clearly label products with their purchase and use-by dates.
- Extend shelf life by vacuum packing, freezing and marinating meat and vegetables.
- Consider new technologies for extending shelf life such as ozone food preservation.
- Increase the use of sous vide cooking to increase the shelf life of ingredients: more information on <http://modernistcuisine.com/2013/01/why-cook-sous-vide/>
- Prepare items such as bread, cakes and desserts in house so you have control of volumes on a daily basis.
- A 'Special Dish of the Day' is a good way to use up stock approaching its use-by date.

## Measure 4: Preventing waste on the buffet and on customers plate

### BUFFET

- Avoid displaying too much all at once. Instead, put out less of each and top up as demand dictates.

- Use flat and separable containers which allow you to adjust the amount of food presented.
- Label the ingredients of dishes to avoid extensive tasting. Guests can take only what they like.
- Offer as much front/show cooking as possible. This allows you to prepare fresh, correctly portioned dishes in front of the guests.
- Present food creatively, reducing the quantity served.
- Use single portions towards the end of the buffet.
- Divide meat and fish into 50g portions.
- Closely monitor the amount of food that is put out on the buffet.

### À LA CARTE MENU

- Consider offering different portion sizes to suit different appetites: lighter eaters and children.
- Apply good portion control by working out optimum portion sizes and keeping to them.
- Make the choice of side dishes more flexible, e.g. smaller portion sizes with refill options.
- Use more voluminous garnishes such as curly salad leaf; they create the same volume on the plate, but use fewer leaves.
- Adapt menus so that items that customers often leave are reduced or made optional.
- Raising general awareness about food waste and its costs automatically drives waste down.



## Measure 5: Reduce packaging waste

- Work with suppliers to reduce packaging.
- Encourage your staff to provide feedback when food seems to be over-packaged or packaging is bigger than necessary.
- Avoid buying products which are over-packaged.
- Wherever possible buy products packaged in recyclable materials such as cardboard.
- Where possible, return packaging to suppliers for reuse.
- Buy in bulk, as long as all the products will be used.
- Provide refillable bottles or carafes instead of plastic bottles.
- Serve beverages and drinks from a dispenser.
- Use a dispensing system to replace single portion packaging (sauces, condiments etc.).
- Recycle packaging waste.

## What else to consider for recycling packaging waste:

- Check out what recycling services are offered in your area.
- Set up an internal waste collection system to segregate waste.
- Train staff to separate waste into the right bins.
- Use bin icons/stickers to help staff put waste into the right bin.
- Investigate the benefits of using a cardboard compactor and/or glass crusher to reduce the space needed to store your waste.
- Consider upcycling (transforming waste into new products) packaging material.



## BEST PRACTICE



### UPCYCLING AT PALOMA HOTELS

The Paloma hotel group shows how upcycling can be creatively used to reuse packaging waste. Staff and guests are encouraged to design usable products from packaging waste. In the mini club, packaging waste is used to produce handicrafts and toys. In addition, around the premises you find upcycled items such as waste bins at the front entrance of the hotel.



## FIT FOR CERTIFICATION



### Certification schemes focus on the following criteria regarding food waste management:

- You have a process in place to monitor the amount of waste of unused perishable food.
- You have a policy in place that provides a guide to purchasing appropriate portion sizes of perishable foods to ensure that less food waste is generated.
- You have a food management plan for the storage, reuse and disposal of food waste.
- You have an approach to managing the shelf-life of products.
- Except where required by law, no single portion packages are used for breakfast or other food services.

## KEY-RESULTS FROM THE PROJECT



The amount of food waste dumped is high (up to 60%) but there are hardly any food waste review systems in place. Most holiday resorts offer self-service buffets and have already several measures in place to prevent waste, such as

smaller serving containers, live cooking, smaller and single portions. Also, self-service beverage dispensers and dispensing systems to replace single portion packaging are in use. Differences in awareness levels and behaviour regarding

food waste were seen to depend on the nationality and age of guests. No communication campaign targeted at guests to reduce food waste was found. There is a need to build awareness and change the behaviour of guests.

## TOP RESOURCES FOR FURTHER INFORMATION

- A collection of online information to prevent food waste and recycle more: [www.wrap.org.uk/hafsaresources](http://www.wrap.org.uk/hafsaresources)
- Great food savings tips: [www.foodsave.org/resource-library/food-waste-reduction-top-tips/](http://www.foodsave.org/resource-library/food-waste-reduction-top-tips/) and [www.unileverfoodsolutions.co.uk/our-services/your-kitchen/video-wall](http://www.unileverfoodsolutions.co.uk/our-services/your-kitchen/video-wall)
- Case studies: [www.foodsave.org/casestudies/](http://www.foodsave.org/casestudies/)
- Background information and tips to reduce waste: [www.united-against-waste.de/de/](http://www.united-against-waste.de/de/)

# CHECKLIST – WASTE MANAGEMENT

Measure	Implementation?		
	++	+/-	--
Waste management			
We monitor and measure our food waste (we know where, when, why and how much waste is being produced).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We optimise our menu planning and remember that more complication generates more waste.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We redistribute and reuse food items that have not been sold (animal farms).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have established good purchasing procedures based on good stock control and forecasting (e.g. we use a tool such as a stock control and purchasing list).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We prepare items such as bread, cakes and desserts in house so we have control of volumes on a daily basis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We offer a 'Special Dish of the Day' in order to use stock approaching its use-by date.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have methods in place to prevent waste on the buffet and on customers' plates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We offer as much front/show cooking as possible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We are considering offering different portion sizes to suit different appetites.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We avoid buying products which are over-packaged.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have checked out what recycling services are offered in our area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We give customers the chance to give feedback on issues associated with certain types of meals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# PART IV

## HOW TO IMPLEMENT SUSTAINABLE FOOD STRATEGIES



# SUSTAINABLE FOOD OPERATIONS

Hotel and kitchen management play a crucial role in the implementation of sustainable food strategies and operations. Without their dedication and commitment, a change to more sustainable food operations will not take place. Implementation will be successful when the factors below are taken into consideration. At the same time, hotels and cruise ships are a part of broader society and interact with different groups within their communities. It is the community which makes business possible and provides resources such as educated and healthy workers, a physical and legal infrastructure, as well as markets for services and products. Therefore, hotels and cruise ships should engage socially with their community in order to maintain a healthy relation with it.



1. Include your commitment to sustainable food in your mission statement and strategies. They will guide your management and staff in day-to-day operations.

2. Create awareness among staff members of the importance and benefits of sustainable food operations in order to gain the support of as many staff members as possible.

3. Train your staff well on all aspects of sustainable food operations in order to be able to continuously innovate and improve operations.

4. Stimulate the change process and encourage management and staff members to continuously innovate and move operations towards more sustainability.

5. Set targets for all sustainable food parameters and regularly monitor them (targets for suppliers, resource consumption, waste production, etc.).

6. Establish long-term relationships with your suppliers, staff and the community. This will support you in delivering good products and service quality, as well as minimising risk.

7. Create and provide communication tools in order to communicate your sustainable food strategy and range to your staff, your guests and other stakeholders.

8. Communicate your sustainable food strategy continuously, at every point of contact with your staff, guests and other stakeholders.

## KEY RESULTS FROM THE PROJECT



### KEY DRIVERS ARE AWARENESS BUILDING, STAFF TRAINING AND GUEST COMMUNICATION

The analyses of food operations in holiday resorts identified a high level of interest in the topic of sustainable food among hotel representatives but low implementation levels of strategies and operations. Therefore it is very important to create awareness of, and educate hotel representatives in, all aspects

of sustainable food operations. Besides taking measures in the areas of food purchasing, preparation, presentation and waste management, it was found that awareness building, staff training and guest communication are extremely important to support the implementation of sustainable food operations.

In addition, the project research has shown that social community engagement is highly dependent on the ties

and degree of relation owners and management have with the local community. Often family-owned businesses have their roots in the community and feel responsible for the well-being of local society. However, non-family owned hotels should also realize that only a healthy community will provide the basis for their own prosperity.

# CHECKLIST – HOW TO IMPLEMENT SUSTAINABLE FOOD STRATEGIES

Measure	Implementation?		
	++	+/-	--
How to implement sustainable food strategies			
We are building awareness among our staff members/colleagues of the importance and benefits of sustainable food operations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We offer continuing education and staff training on sustainable food operations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We stimulate the change process and encourage management and staff members to innovate continuously and improve operations for more sustainability.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We are working on long-term relationships with our suppliers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have created and provided communication tools in order to communicate our sustainable food strategy and range to our staff, our guests and other stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A sustainable food policy is included in our mission statement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have set targets for all sustainable food parameters and regularly monitor them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our employees/colleagues work under fair conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## BIBLIOGRAPHY AND USEFUL LINKS

- <sup>1</sup> Ministerium für Umwelt, Landwirtschaft, Ernährung, Weinbau und Forsten Rheinland-Pfalz, 2014: Nachhaltige Ernährung - Was unser Essen mit Klimaschutz und Welternährung zu tun hat, Mainz.
- <sup>2</sup> Cyprus Breakfast, 2016: [www.cyprusbreakfast.eu](http://www.cyprusbreakfast.eu)
- <sup>3</sup> Jungbluth, N., 2000: Umweltfolgen des Nahrungsmittelkonsums - Beurteilung von Produktmerkmalen auf Grundlage einer modularen Ökobilanz, Berlin.
- <sup>4</sup> Cuesa, 2016: Cultivating a healthy food system, [www.cuesa.org](http://www.cuesa.org)
- <sup>5</sup> Fairtrade, 2016: [info.fairtrade.net](http://info.fairtrade.net)
- <sup>6</sup> European commission, Agriculture and rural development, 2016: [ec.europa.eu/agriculture/organic/downloads/logo/index\\_en.htm](http://ec.europa.eu/agriculture/organic/downloads/logo/index_en.htm) ec.europa.eu
- <sup>7</sup> Ecoresort-tui, 2016: [ecoresort-tui.com/de/zertifizierte-objekte/category/1/](http://ecoresort-tui.com/de/zertifizierte-objekte/category/1/)
- <sup>8</sup> World Wide Fund for Nature, 2016: [wwf.panda.org/how\\_you\\_can\\_help/live\\_green/out\\_shopping/seafood\\_guides/](http://wwf.panda.org/how_you_can_help/live_green/out_shopping/seafood_guides/)
- <sup>9</sup> Thomas Cook and FUTOURIS e.V., 2015: Water Management Manual, [www.futouris.org/en/projects/wertvolles-wasser/](http://www.futouris.org/en/projects/wertvolles-wasser/)
- <sup>10</sup> Daxbeck et al., 2011: Möglichkeiten von Großküchen zur Reduktion ihrer CO<sup>2</sup>-Emissionen, [suki.rma.at/sites/suki.rma.at/files/Projekt%20SUKI%20-%20Handbuch%20%28Vers.%201.1%29.pdf](http://suki.rma.at/sites/suki.rma.at/files/Projekt%20SUKI%20-%20Handbuch%20%28Vers.%201.1%29.pdf)
- <sup>11</sup> WRAP 2016, [www.wrap.org.uk/](http://www.wrap.org.uk/)
- <sup>12</sup> Gössling, S. (2011): Food management in tourism. Reducing tourism's carbon 'foodprint'. In: Tourism Management, Vol. 32, Issue 3, p. 534-543.

## TOP RESOURCES

### SUSTAINABLE PURCHASING POLICY

Report on the Cyprus Breakfast project that can serve as an implementation guideline for similar projects [csti-cyprus.org/wp-content/uploads/2014/03/Cyprus-Breakfast-Report.pdf](http://csti-cyprus.org/wp-content/uploads/2014/03/Cyprus-Breakfast-Report.pdf)

European Commission (2008): Green Public Procurement Training Toolkit - Catering and Food. Good example of a supplier scorecard [ec.europa.eu/environment/gpp/pdf/toolkit/food\\_GPP\\_product\\_sheet.pdf](http://ec.europa.eu/environment/gpp/pdf/toolkit/food_GPP_product_sheet.pdf)

United Nations Environment Programme (2015): Responsible Food Purchasing. Four steps towards sustainability for the hospitality sector. [apps.unep.org/publications/index.php?option=com\\_publication&task=download&file=-Responsible\\_food\\_purchasing\\_Four\\_steps\\_towards\\_sustainability\\_for\\_the\\_hospitality\\_sector.pdf](http://apps.unep.org/publications/index.php?option=com_publication&task=download&file=-Responsible_food_purchasing_Four_steps_towards_sustainability_for_the_hospitality_sector.pdf)

Extensive implementation guidelines with multiple checklists and best-practice examples.

Yale Sustainable Food Project (2008): Sustainable Food Purchasing Guide. [www.sare.org/content/download/72014/1025843/Sustainable\\_Food\\_Purchasing\\_Guide.pdf?inline-download=1](http://www.sare.org/content/download/72014/1025843/Sustainable_Food_Purchasing_Guide.pdf?inline-download=1) >Download File

### DESIGNING OF A SUSTAINABLE MENU, FOOD PRESENTATION AND COMMUNICATION

Principles of healthy and sustainable menus, Menus of change: [www.menusofchange.org/news-insights/resources/moc-principles/#a](http://www.menusofchange.org/news-insights/resources/moc-principles/#a)

Sustainable food policy: [www.sustainablefoodpolicy.org](http://www.sustainablefoodpolicy.org)

Unilever World Menu report: [www.ufs.com/company/media-center/world-menu-report](http://www.ufs.com/company/media-center/world-menu-report)

Unilever, the basics of food plating: [www.unileverfoodsolutions.com.sg/our-services/your-menu/food-presentation](http://www.unileverfoodsolutions.com.sg/our-services/your-menu/food-presentation)

### WASTE MANAGEMENT

[www.wrap.org.uk/hafsaresources](http://www.wrap.org.uk/hafsaresources) offers a collection of online information to prevent food waste and recycle more.

[www.foodsave.org/resource-library/food-waste-reduction-top-tips/](http://www.foodsave.org/resource-library/food-waste-reduction-top-tips/) and [www.unileverfoodsolutions.co.uk/our-services/your-kitchen/video-wall](http://www.unileverfoodsolutions.co.uk/our-services/your-kitchen/video-wall) offer great food savings tips.

[www.foodsave.org/casestudies/](http://www.foodsave.org/casestudies/) offers case studies.

[www.united-against-waste.de/de/](http://www.united-against-waste.de/de/) offers background information and tips to reduce waste.

## PICTURES AND IMAGES

All pictures and images are own photographs or released from "pixabay.com" under Creative Commons CCO.

# WWW.FUTOURIS.ORG

FUTOURIS GESCHÄFTSSTELLE · SCHICKLERSTRASSE 5 · D-10179 BERLIN  
TELEFON: +49 (030) 27 89 0182 · E-MAIL: [INFO@FUTOURIS.ORG](mailto:INFO@FUTOURIS.ORG)