

TOURISM POLICIES AND FASHION, ART AND FOOD INDUSTRIES

**The food industry: a focus on food
wastage**

Lecture 26

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Learning Objectives

- ✓ Food industry and its components
- ✓ The issue of food wastage
- ✓ Numbers
- ✓ Drivers
- ✓ Impacts
- ✓ Solutions
- ✓ Food sharing

Introduction

- Food is an essential part of our lives.
- The Food industry includes all processed foods which have been prepared or preserved in some way.
- World population was growing at a 2 % annual rate from the sixties to reach 7.7 billion worldwide in 2019.
- Consumption has been growing faster than population in the past two decades.
- Changes in consumer preferences.

Components of food industry

The food industry includes

- Agriculture
- Food Processing
- Food Distribution
- Regulation
- Financial Services
- Research & Development
- Marketing

The issue: food wastage

About 1.3 billion tons of food are wasted every year worldwide.

The European Commission reports that more than 100 million tons per year are wasted in the EU with an average of 173 kg of food waste per person.

At the same time one billion people in the world are suffering and dying from hunger.

Food waste happens essentially at all phases of the food supply chain.

Defining food wastage

- **Food losses** refer to a loss of nutritional quality of food originally intended for human consumption, usually caused by inefficiencies in the supply chain.
- Food being discarded, most often at the retail and final consumption stages, is called **food waste**.
- Causes of **FLW** are classified by:
 - Micro-level causes (harvesting, storage, transport, etc.)
 - Meso-level causes (too long chains, lack of coordination, etc.)
 - Macro-level causes (lack of infrastructures, low educational level, etc.)

Food wastage in Europe

Table 1

Estimates of food waste in EU-28 in 2012 (with 95% confidence interval).

Sector	Food waste (Mt)	Food waste (kg per person)
Primary production	9.1 ± 1.5	18 ± 3
Processing	16.9 ± 12.7	33 ± 25
Wholesale and retail	4.6 ± 1.2	9 ± 2
Food service	10.5 ± 1.5	21 ± 3
Households	46.5 ± 4.4	92 ± 9
Total food waste	87.6 ± 13.7	173 ± 27

Source: [FUSIONS, 2016](#).

- The overall economic cost associated with food waste in Europe (EU-28) would amount to about 143 Bn euros.

PAUSE

Drivers of food wastage

According to the European Commission, in Europe the main causes of food losses and waste are:

- food overproduction
- high aesthetic market standards
- stock management inefficiencies
- packaging damage
- marketing strategies (e.g. 2 for 1, buy 1 get 1 free)
- supply chain inefficiencies
- abundant standard portion sizes offered in catering services

Drivers of food wastage at household level

Consumers play a fundamental role. Unsustainable behaviors at households level can be classified in three main categories:

- socio-demographic
- knowledge and domestic skills
- socio-psychological

Impact of food wastage

The amount of food wastage produced the following impacts:

- **ecological**
 - 3.3 gigatons of CO₂ equivalent, 1.4 billion hectares of land
- **economic**
 - \$USD 750 billion (producers); €270 - 400 (consumers)
- **ethical**
 - food production provides enough to feed 12 billion people – the world population is 7 billion – 40% of the entire production is wasted, and one billion people go hungry every day.

Solutions to food wastage

The measures proposed are the following:

- donating food close to its “best before/use by” date to **food banks**.
- turning rejected, unfinished, damaged food, mainly from industrial production, into **feed**.
- turning food waste into **bio-energy**.
- favouring **food sharing** models.

Food sharing and food waste reduction

The **sharing economy** approach entails the act and process of distributing what is ours to others for their use and/or the act and process of receiving or taking something from others for our use.

What is food sharing?

...food sharing is doing things together around food.

Little attention has been paid in literature to the testing of the effectiveness of consumer-side sharing practices on reduction of food wastes.

The case of OLIO

OLIO is a mobile app for food-sharing, aiming to reduce food waste.

The food must be edible; it can be raw or cooked, sealed or open.

Surplus food can be donated by individuals or companies such as food retailers, restaurants.

2.3 millions people, 6.6 millions portions of food shared, 19 millions equivalent car miles saved.

Contacts and office hours

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