The Concept of Food Waste and Food Losses Prevention and Measuring Tools

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Available at: http://www.adorngeo.com/2-food-systems--spread-of-disease.html
Estimated FW in EU and worldwide

Estimated total food waste in the EU, 2010 (kg per capita)

The biggest food wasters around the world

Data source: Technology options for feeding 10 billion people, STOA 2013.
Available at: https://epthinktank.eu/2014/02/07/tackling-food-waste-the-eus-contribution-to-a-global-issue/food-waste3/
What makes FW/FL one of the main global issues?

Globally:
The global food system account 1.3 billion tons of food are lost or wasted every year (World Counts, 2022). At the same time, FAO estimates that one-third of food produced worldwide is wasted, contributing to more than 820 million people battered with world hunger each year and 2 434 235 people who died from hunger in 2022 globally.

European Union:
In the EU alone, around 931 million tons of FW were generated in 2019. In addition, FW accounts for 25% of the annual freshwater supply and approximately 300 million barrels of oil annually (Danible et al., 2021). Greenhouse gas emissions from the production of food are ultimately wasted, accounting for 7.2 billion tons from within the farm gate, 3.5 tones from land use change, and 5.8 billion from supply chain processes, according the last analysis (FAO, 2019).
The environmental cost of one meal requires:

- 10 kg of topsoil,
- 1.3 L of diesel,
- 800 L of water,
- 0.3 gr of pesticides and
- 3.5 kg of CO2 emissions (The World Counts, 2022)

### Research Question

- Identify
- Analyze
- Control
- Provide solution
How we can identify and control them?

Directives / Legislations:

- Directive 2008/98/EC lays down an obligation for Member States to include Food Waste Prevention (FWP) into their waste prevention programs and to monitor and assess the implementation of their FWP measures by measuring the levels of FW on the basis of a common methodology in stages of the food supply chain based on Commission Delegated Decision EU 1597/2019.

Solutions:

- ISO 22000
- ISO 1401
- EGD
- SDG’s
- CEAP

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<th>Stage of the food supply chain</th>
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New Approach

FOOD DIPLOMACY
- FOOD POLICY
- ACCESS TO FOOD
- CONTROL OF NATURAL RESOURCES
- POLITICAL & ECONOMIC RELATIONS
- BEYOND AND THROUGH FOOD

CIRCULAR LIVING
- CIRCULAR ECONOMY
- FOOD WASTE – FOOD LOSSES
- SMART CITIES

FOOD
- IS ENERGY
- IS LIFE
- IS CULTURE
- IS CARE
- IS TRADITION
- IS INCLUSION
- IS PLEASURE

PROSPERITY
- NEW KPI FOR BUSINESS
- SDG’S AS BUSINESS FRAMEWORK
- GREEN FINANCE

FOOD IDENTITY
- REGENERATIVE BUSINESS MODELS
- GREEN DEAL
- CARBON COMPENSATION
- CLIMATE ADAPTATION
- CULTURE
- SOCIAL INCLUSION
- DIVERSITY AS VALUE
- BEHAVIOUR CHANGE
The reduction of FW/FL has become a fundamental responsibility involving the entire community, from international institutions to individual citizens.

Thank you!