



FOOD WASTE AND LOSS IN EUROPE: STATISTICS AND FACTS



Silvius STANCIU, Puiu Lucian GEORGESCU

"DUNAREA DE JOS" UNIVERSITY OF GALATI, ROMANIA



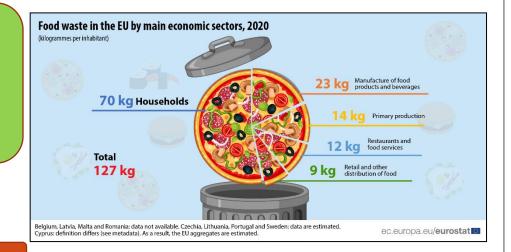


Workshop exploratoriu
"Alimentație sustenabilă în contextul schimbărilor climatice"

This work was supported by the Project "DINAMIC", financed by the Romanian Ministry of Research and Innovation, Contract no. 12PFE/2021

Food Waste and Loss in Europe: Statistics and Facts

- Abstract
- Introduction
- Material and methods
- Results
- Conclusion
- References



Abstract

Globally, it is estimated that around 14% of food production, losses valued at 400 billion dollars, are wasted annually, between the harvesting stage and retail sale to the consumer. In the EU, food waste costs an estimated €143 billion per year, causing at least 6% of total greenhouse gas emissions. Around 20% of EU food production is currently wasted, and halving EU food waste by 2030 could save 4.7 million hectares of agricultural land. 69% of food waste in the EU comes from the household, food service and retail sectors, with the manufacturing and processing sectors contributing the remaining 31%. According to Eurostat, in the main stages of the food chain, the losses are differentiated by European countries. Most of food waste is likely to fall outside the current scope of EU food waste measurement and national reporting, which excludes food left unharvested or used on farms.

Keywords: food, waste. loss, Europe

Global food losses and wasted

Commodity	Ra (T		Wastage by region income (1000 tonnes)			
	Minimun	Maximum	Low	High	Total	
Cereals	19 % (SSA)	32% (NAm&Oce)	155,800	161,100	316,900	
Oil crops and pulses	18% (Ind. Asia)	29 % (NAf,WA& CA)	123,100	121,600	244,700	
Roots and tubers	33% (NAf,WA&CA)	60 % (NAm&Oce)	31,500	11,600	43,100	
Fruit and vegetables	37% (Ind. Asia)	55% (NAf, WA&CA)	221,600	270,400	492,000	
Meat	20% (S&SE Asia)	27% (SSA)	20,000	40,700	60,700	
Fish and seafood	30% (LA)	50% (NAm&Oce)	6,700	10,700	17,400	
Milk	11% (Ind. Asia)	25% (SSA)	64,700	55,000	119,700	
Eggs	12% (SSA)	20% (NAm&Oce)				
Total wastage					1,294,500	

Global food losses and waste per year

1/3

of the world's food is squandered, that is

billion tons of wasted food at

approx. trillion USD costs





45%

of all fruit and vegetables



35 % of all fish and seafood



30 % of all cereals



20%

of all dairy products



20%

of all meat and poultry

Working together to cut food waste and loss

Initiative called "10x20x30" unites food supply chain giants:



of the world's biggest food retailers and







This private sector committment aligns with the United Nations' Sustainable Development Goal Target 12.3 to reduce 50% of food waste and loss by 2030 worldwide.

The Enormous Scale of Global Food Waste

Total annual household food waste produced in selected countries*

- Total food waste per year (tonnes)
- Estimated food waste per capita (kg)



India 68,760,163 50

United States 49 19,359,951 59

Japan

8,159,891

64

Germany 6,263,775 75

France () 5,522,358 85

United Kingdom # 5,199,825 77

Russia 4,868,564 33

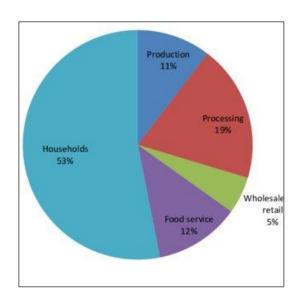
Spain **a** 3,613,954

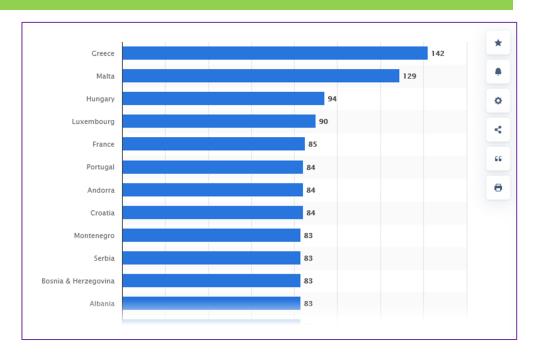
Australia 2,563,110

* UNEP estimates with high or medium confidence Source: UNEP Food Waste Index Report 2021







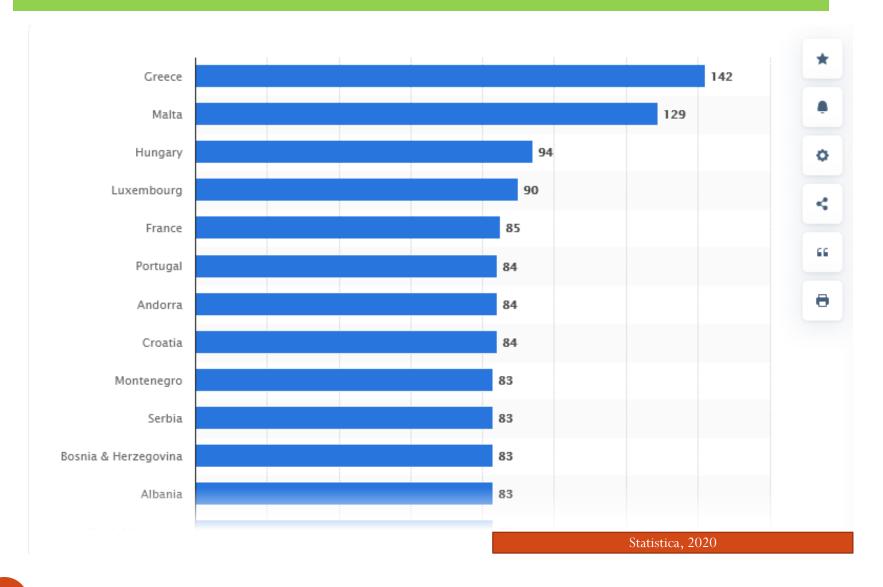


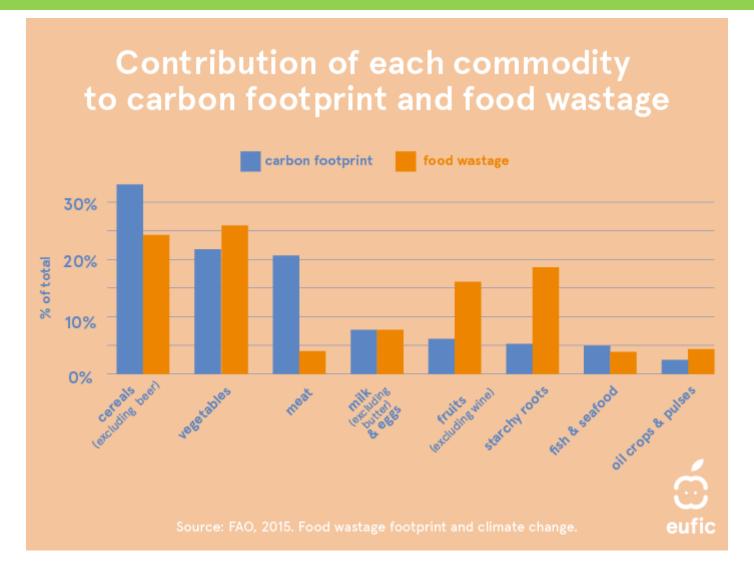
Top food wasting countries in Europe (2023)

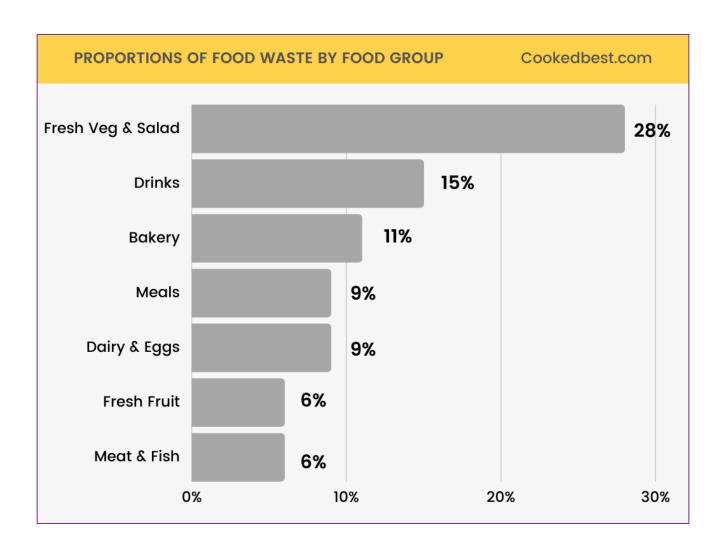
Country	Waste (kg/ capita)	Country	Waste (kg/ capita)
Portugal	184	Sweden	87
Greece	191	Bulgaria	86
Denmark	221	Slovakia	83
Belgium	250	Croatia	71
Cyprus	397	Slovenia	68

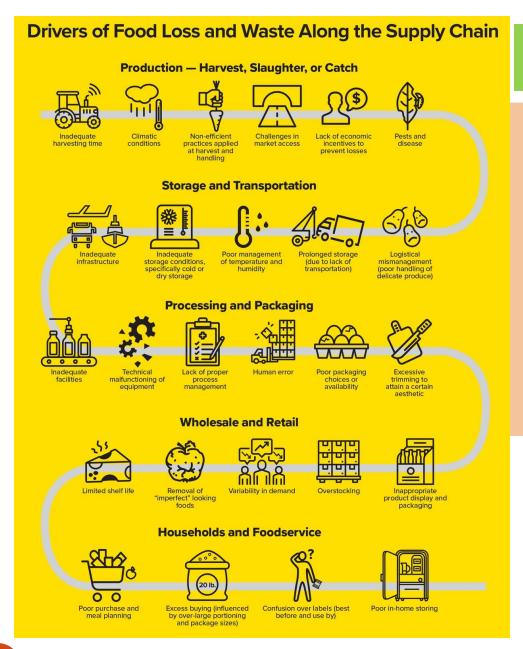
Top European food waste, by stage of food chain and countries

Primary produ	ction of food	Manufacture		Retail and distribution	ı	Restaurants and services	l food	Households	
Country	Waste	Country	Waste	Country	Waste	Country	Waste	Country	Waste
Cyprus	49	Cyprus	190	Cyprus	56	Malta	45	Portugal	124
Greece	35	Belgium	161	Portugal	21	Portugal	36	Italy	107
Bulgaria	33	Denmark	102	Denmark	17	Austria	30	Malta	92
Norway	30	Netherland	59	Estonia	15	Cyprus	2.3	Luxembourg	91
Lithuania	29	Ireland	44	Greece	14	Portugal	2.3	Greece	87
				5 1 .		. 1		G	
Austria	2	Norway	5	Belgium	6	Italy	3	Croatia	53
Hungary	2	Sweden	5	Hungary	4	Hungary	2	Ireland	48
Germany	2	Slovenia	5	Slovakia	3	Lithuania	2	Slovenia	36
Malta	1	Croatia	2	Bulgaria	2	Bulgaria	2	Spain	30
Slovenia	0	Slovakia	1	Croatia	1	Slovakia	1	Bulgaria	26
							Eurostat,	2023	









Measurement is vital to reducing food loss and waste!

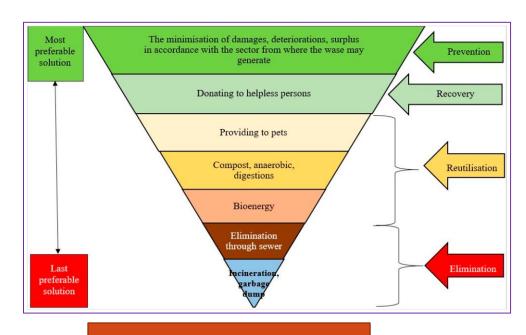




Food waste in Romania



The food waste structure in Romania Source: Food Waste Romania, (2019)



Food waste scale in Romania Source Chereji et al, 2023

What to do?

- Governmental measures (e.g. Romanian Law 217/2016 concerning the decrease of food waste (amended in 2018)
- Preventing wasted food in households,
- Reduce the waste and loss on the food chain (primary, processing, consumption)
 - Farms improved storage methods, redistribute food, improve technology
 - Consumption better food data labels, reduce portion size,
- <u>Civil society initiatives (e.g. Community refrigerator, Social Store, Meal of Joy, Food Bank etc.)</u>
- Organic farming by using organic fertilizer
- Food education program to reduce food waste and improve nutrition













Prof. dr. Silvius STANCIU