

UNEP Food Waste Index & Food Waste in Cities

MACS-G20 Food Loss and Waste LAC Regional Workshop
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22 October 2024



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World wasted 1.05 billion tonnes of food in 2022



Environmental:

Food loss and waste generates **8-10% of global GHG emissions**.
Particularly large source of methane.



Economic:

Food loss and waste estimated to cost upwards of **\$1 trillion** per year



Humanitarian:

Food being wasted, despite an ongoing crisis of hunger. In 2022, **783 million people** faced severe food insecurity.



UNEP's Role delivering Sustainable Development Goal 12.3

Mandated by United Nations Environment Assembly Resolution 4/2

Data

- Custodian of SDG 12.3 Food Waste Index
- Methodology for national food waste measurement
- Global & country-level estimates
- In-country measurement

Advocacy

- Co-convenor of International Day of Awareness on Food Loss and Waste
- Campaign and activations
- #123Pledge

Cooperation

- Fostering global and regional collaboration through e.g.
 - UNFSS
 - MEAs
 - G20
 - EU Platform
 - Regional Food Waste Working Groups

Capacity Building

- National and regional capacity building on:
 - Measurement
 - Policy and NDCs
 - Public-Private Partnerships
 - Consumer Behaviour Change
 - Circular Food Systems

Tracking Progress on Sustainable Development Goal 12.3

Food Loss Index- focus on supply

Custodians of 12.3 indicators:
FAO & UNEP



“By 2030, ...



“...reduce food losses along production and supply chains, including post-harvest losses.”

Food Waste Index- focus on demand



“...halve per capita global food waste at the retail and consumer levels.”



The Scale of the Problem

- **19% of food available to consumers goes to waste**
- **1.05 billion tonnes wasted at retail, food service and households**

	Global Average (kg/capita/year)	2022 Total (million tonnes)
Household	79	631
Food service	36	290
Retail	17	131
Total	132	1,052

One billion meals a day wasted

- We waste **631 million tonnes** from households globally
- This is more than **one billion meals' worth of food** thrown out by households each day
- That is **more than one meal per day** for each person facing hunger around the world



What's in the report?

- **New estimates of food waste for every country**
 - *Literature review, regional data summaries and global estimates*
- **Expanded methodological guidance for countries to measure food waste**
 - *Detailed guidance from GO4SDGs UNEP Regional Working Groups*
- **Solutions focus: Public-Private Partnerships**
 - *First of new series looking at how we achieve SDG 12.3*



Big increase in data coverage

Nearly doubling the number of countries with primary data in households -- but most of this growth is from subnational, rather than national, studies.

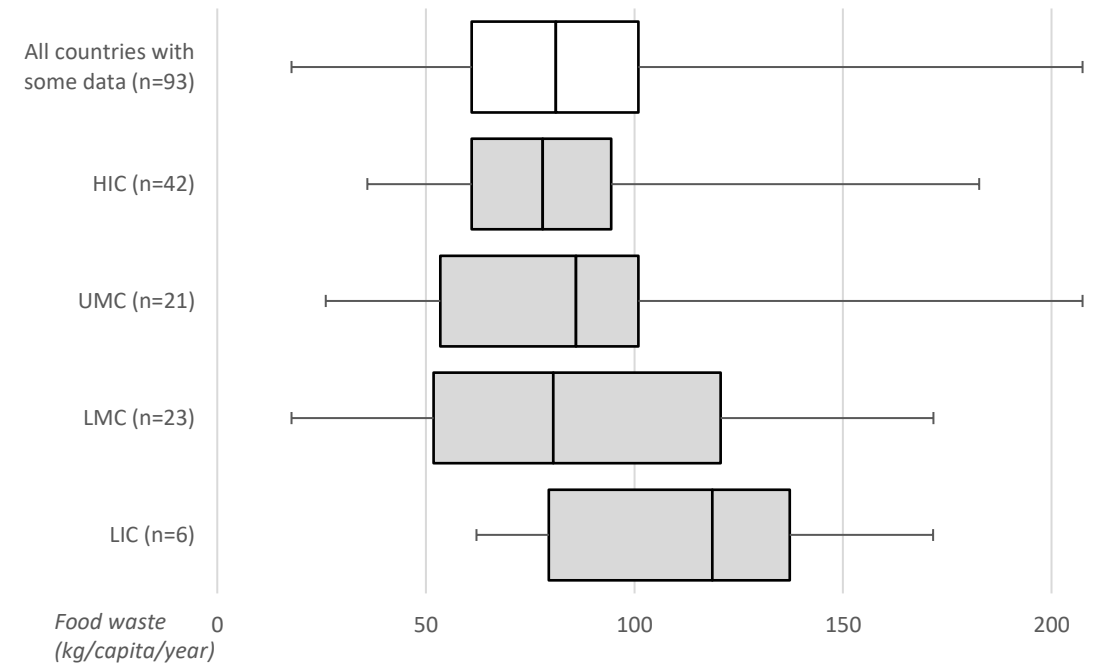
Included in 2024 report (change from 2021 report)	Household	Food Service	Retail	Total
Number of datapoints	194 (+103)	49 (+17)	45 (+16)	288 (+136)
Number of countries	93 (+41)	41 (+18)	45 (+22)	102 (+48)

More national baselines urgently needed.



Global problem not limited to rich countries

- Substantial household food waste identified in all countries, **regardless of country income group**
- Just **7 kg/capita/yr** between the average household food waste of high, upper-middle and lower-middle income*



**Low income not included due to much smaller sample size*



Action at scale is possible!

Japan: 31% reduction

- Mandatory reporting of food waste from large businesses
- Industry reduction targets
- Effective animal feed diversion
- Public awareness ('No-foodloss')



See:
<https://www.maff.go.jp/e/policies/env/frecycle.html>

Per capita, 2008-2020, household, food service and retail.

Netherlands: Reductions of 23% at consumer & 17% retail level

- A national consumer activation campaign with 150 partners (public and private). "Food waste free week" organized annually.
- Food Waste Free United Foundation - voluntary agreement initiated by the Dutch government, Wageningen University & Research (WUR), the Dutch Nutrition Centre and 25 private sector organisations in 2017.

United Kingdom: 18% reduction

- Voluntary reporting and engagement through *Courtauld Commitment* Public-Private Partnership – **retail 26% reduction**
Manufacturers 34%
- Product- and sector-specific best practice guidance
- Redistribution working group
- Public awareness ('Love Food, Hate Waste')



See:
<https://wrap.org.uk/taking-action/food-drink/actions/action-on-food-waste>

Per capita, 2007-2021, household, food service, retail, manufacture



2025 NDC revision process is a key opportunity to integrate FLW

Just 21 countries include food loss and/or waste reduction in their NDCs

Source: WRAP (2022), Food Loss and Waste: From Commitments to Action

Examples of direct commitments to reduce food waste within NDCs

China

"The Code of Conduct for Environmental Protection (Trial) was released to encourage the public across the country to practice low-carbon lifestyles through measures such as energy conservation and green consumption."

The "Clean Plate campaign has been launched nationwide to reduce food waste."

Cabo Verde

Plans for improving "means and equipment for solid and organic waste control, **reduction management** and awareness raising among households and communities."



Namibia

Proposed future adaptations in Namibia's blue economy include to "Promote innovations in food processing, food losses and waste" within their adaptation measures.

Sierra Leone

Sierra Leone commits to improving value chains through "technologies and tools for reducing food waste."



The United Arab Emirates (UAE)

The UAE aims to cut food waste by half by 2030.

"The UAE has taken a comprehensive approach to reducing food waste by engaging local residents, government organizations and businesses in initiatives to reduce, and encourage treatment of, food waste."

The nationwide Food Waste Pledge launched in 2018 encourages the UAE's hospitality sector to adopt efficient food production practices.

UNEP Regional Food Waste Working Groups

Participants by Region

Africa	Asia Pacific	Latin America & the Caribbean	West Asia
Mauritius	China	Argentina	Bahrain
Nigeria	Philippines	Brazil	Jordan
South Africa	Republic of Korea	Chile	Palestine
Uganda	Malaysia	Colombia	Qatar
Ghana	India	Costa Rica	Saudi Arabia
Tanzania	Thailand	Mexico	UAE
		Uruguay	Lebanon
		Ecuador	



Vital Role of Cities in Cutting Food Waste

- **80% of all food consumption expected to take place in cities by 2050**
- More new data at subnational level than any other
- Early findings suggest cities waste more than rural
- Strong business case: study shows **8-to-1 return on investment for cities**
 - 92-to-1 when benefit to residents included

Source: Champions 12.3 2019



As hubs of food consumption, innovation, and waste management, **cities are uniquely placed to act on food waste and promote circular food systems.**

Dense urban networks can facilitate food **redistribution, upcycling, and composting** for urban and peri-urban agriculture.



Rio Study Finding: 62% of Household Waste is Food

THE STUDY FOUND THE FOLLOWING:



Food waste was **62% by mass** of total household waste, significantly more than the fractions for packaging and residual waste fractions.



No correlation was found between income group and per capita food waste generation.



Median per capita food waste generation was **77 kg/capita/year**

FOOD WASTE CATEGORIES (% BY MASS) WERE:

Fruit and vegetables:

62%



Meat:

11%



Dairy:

11%



Bakery:

16%



EDIBLE AND INEDIBLE FRACTIONS WERE:

Edible
39%



Inedible
61%



Inedible fruit and vegetables were the largest fraction, at **81%** of all fruit and vegetable waste generated or **73%** of all inedible food waste.



First official SDG 12.3 Food Waste Data Reporting now open



- Sent to all LAC SDG Data Focal Points
- Deadline for submissions is Friday 6 December
- Please help your member state report national food waste data

United Nations Statistics Division (UNSD) and United Nations Environment Programme QUESTIONNAIRE 2024 ON ENVIRONMENT STATISTICS

Section: WASTE

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Thank you

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Conclusions

- **Food waste is huge global problem with more than 1 billion tonnes per year thrown away.**
- **It is a problem everywhere, and requires global action.**
- **We know how to reduce food waste at scale – it's time to act. Cities will be critical to this effort.**

Report link: <https://www.unep.org/resources/publication/food-waste-index-report-2024>

