There is wide variability in food loss and waste.

FAO’s new estimates for food loss are a big step towards action.

1/3 of food is lost or wasted
FAO raised awareness on food loss and waste with a global estimate in 2011

SDG Target 12.3 reflects growing attention to the issue

Creation of two indices to measure progress towards this target

- **FOOD LOSS INDEX**
- **FOOD WASTE INDEX**
Food Loss and Waste is the decrease in quantity or quality of food along the food supply chain.

**Food Loss** – losses occurring along the food supply chain from harvest / slaughter/ catch upto but not including the retail level.

**Food Waste** – losses occurring at the retail and consumption level.
FAO’s earlier estimate has changed due to methodologies.

Methodological differences in coverage, concept, valuation explain how we moved past “1/3” estimate.

- Extreme events (SDG 1.5)
  - Preharvest/Pre-slaughter
  - Harvest/Slaughter
  - On-farm post-harvest/Slaughter operations
  - Transport, storage and distribution
  - Processing and packaging
  - Retail
  - Public and household consumption

Stages of the food systems:

- Harvest losses:
  - Can be added to the index coverage and measured with crop-cutting surveys

- Food loss index at the national level (SDG 12.3.1.a)
- Food loss index (SDG 12.3.1.a)
- Food waste index (SDG 12.3.1.b)
Globally, around 14% of food produced is lost from post-harvest to (but excluding) retail stage.

### Percentage of food loss globally and by region

- **Eastern and South-eastern Asia**: 10%
- **Western Asia and Northern Africa**: 10%
- **Central and Southern Asia**: 15%
- **Sub-Saharan Africa**: 15%
- **Latin America and The Caribbean**: 15%
- **Australia and New Zealand**: 5%
- **Oceania (excluding Australia and New Zealand)**: 10%
- **Northern America and Europe**: 20%
- **World**: 14%

*Data source: The State of Food and Agriculture 2019*
Guidance on where to intervene

The median values of FLW across regions, commodities and stages of food supply chain

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Range of food loss and waste percentages at wholesale and retail, 2001–2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals and pulses</td>
<td>0-10</td>
</tr>
<tr>
<td>Fruit and vegetables</td>
<td>10-20</td>
</tr>
<tr>
<td>Food loss and waste (%)</td>
<td>20-30</td>
</tr>
<tr>
<td></td>
<td>30-40</td>
</tr>
</tbody>
</table>

Central and Southern Asia
Eastern and South-eastern Asia
Northern America and Europe
Sub-Saharan Africa
Guidance on where to intervene

The boxes around the median lines highlight substantial variability of FLW

Range of food loss and waste percentages at wholesale and retail, 2001–2017

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<th>Category</th>
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Food loss and waste (%)
Reducing food loss and waste benefits the whole society

But interventions need to be tailored to countries’ contexts and objectives

- Improved food security and nutrition
- Reduced natural resource use and GHG emissions
- Improved productivity and economic growth
Reductions should occur early on in the supply chain and in highly food-insecure countries.

Price and income effects of food loss and waste reduction along the supply chain:

- **Agricultural production and harvest, slaughter or catch**
  - Food loss reduction

- **Post-harvest, slaughter or catch operations**
  - Food loss reduction

- **Processing**
  - Food loss reduction

- **Wholesale and retail**
  - Food loss or waste reduction

- **Consumption: households and food services**
  - Food waste reduction

**Point of loss or waste reduction**
- Lower prices, more disposable for food and other goods
- Demand shrinks and production falls, income affected
Impacts of reductions on environmental sustainability

Reductions close to the farm stage are most effective in reducing land and water use. Reductions at consumer, retail levels are most effective in reducing GHG emissions.

Carbon footprint of maize production along the supply chain

- **On-farm operations**
- **Storage**
- **Processing**
- **Wholesale and retail**
- **Consumption**

**Impact of reductions on environmental sustainability**
Adapting strategies to country context

Objectives are different from country to country. They should formulate strategies in line with their objectives.

Aligning objectives and intervention entry points along the food supply chain

- **Upstream**
  - Farm
  - Increase water quality and reduce water scarcity
  - Preserving land
  - Farmer income generation
  - Post-harvest loss reduction for increased food availability

- **Downstream**
  - Consumer
  - GHG emission reduction
  - Plastics reduction
  - Increased quality and nutritional food content
  - Food redistribution
  - Reduced prices for consumers

**Environmental sustainability objectives**

**Food security and nutrition objectives**
Moving forward, all countries must boost **capacity development**, **targeted investments** to reduce loss, and **inform the public** about food waste.

- **FAO’s priority: closing the information gap**

  - FAO has generated improved estimates on food loss
  - FAO has developed guidelines to help countries collect data
  - FAO assists countries to identify critical loss points
Thank you

Consult the SOFA series starting from 1947
www.fao.org/publications/sofa