Eurostat project on food waste statistics

Commission Expert Group meeting on "Food Losses and Food Waste"
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Resource flows in Agri-Food System

A Food Supply chain

A1 Primary production pre-harvest
1 Plant production
2 Animal production & aquaculture
3 Fisheries

A2 Primary production ready for/post-harvest
1 Plant production
2 Animal production & aquaculture
3 Fisheries

A3 Processing & manufacturing

A4 Wholesale, retail & marketing
1 Wholesale
2 Retail
3 Redistribution

A5 Food preparation & consumption
1 At home
2 Out-of-home

B Food and inedible parts removed from the food supply chain

B-i Valorisation & conversion
B1 Animal feed
B2 Biobased materials & biochemicals processing

B-ii Food Waste
B3 Composting
B4 Plough-in/not harvested
B5 Anaerobic digestion
B6 Bio-energy
B7 Co-generation
B8 Incineration
B9 Sewer
B10 Landfill
B11 Discards
European statistics on waste

• Biennial data collection on waste generation and treatment, based on Waste Statistics Regulation (WStatR)
• Dataset on waste generation
  ▪ Broken down into economic activities (NACE) => production and consumption chain
  ▪ Broken down into waste materials
  ▪ No waste item "food waste"
• Coverage: waste handed over to waste management
## Current data availability

<table>
<thead>
<tr>
<th>Item</th>
<th>EWC-STAT</th>
<th>NACE ACTIVITIES</th>
<th>A01-A03 Agriculture, forestry and fishing</th>
<th>C10 - C12 Manufacture of food products, beverages, tobacco</th>
<th>G - U excl. G46.77 Service activities</th>
<th>Households</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>09.1</td>
<td>Animal and mixed food waste</td>
<td>Data reported for the Waste Statistics Regulation (WStatR)</td>
<td></td>
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<tr>
<td>32</td>
<td>09.2</td>
<td>Vegetal wastes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>10.1</td>
<td>Household and similar wastes</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>51</td>
<td>TT</td>
<td>Total</td>
<td></td>
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</tr>
</tbody>
</table>
# Food waste plug-in

## EWC-Stat 4 categories and breakdown into LoW items

<table>
<thead>
<tr>
<th>EWC-Stat 4 categories and breakdown into LoW items</th>
<th>NACE Rev. 2 activities and households</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Coloured items are used already in the WStatR data collection, but without the LoW breakdown in waste.)</td>
<td>(Coloured items are used already in the WStatR data collection, but without the LoW breakdown in waste.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>01-03</th>
<th>10.1</th>
<th>10.2</th>
<th>10.3</th>
<th>10.4</th>
<th>10.5</th>
<th>10.6</th>
<th>10.7</th>
<th>10.8</th>
<th>10.9</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 Animal and mixed food waste</td>
<td>02 01 02</td>
<td>animal-tissue waste</td>
<td>02 02 01</td>
<td>sludges from washing and cleaning</td>
<td>02 02 02</td>
<td>animal-tissue waste</td>
<td>02 02 03</td>
<td>materials unsuitable for consumption or processing</td>
<td>02 03 02</td>
<td>wastes from preserving agents</td>
<td>02 05 01</td>
</tr>
<tr>
<td>0.2 Vegetable wastes</td>
<td>02 01 01</td>
<td>sludges from washing and cleaning</td>
<td>02 01 03</td>
<td>plant-tissue waste</td>
<td>02 01 07</td>
<td>wastes from forestry</td>
<td>02 03 01</td>
<td>sludges from washing, cleaning, peeling</td>
<td>02 03 03</td>
<td>wastes from solvent extraction</td>
<td>02 03 04</td>
</tr>
<tr>
<td></td>
<td>02 06 01</td>
<td>materials unsuitable for consumption or processing</td>
<td>02 07 01</td>
<td>wastes from washing, cleaning and</td>
<td>02 07 02</td>
<td>wastes from spirits distillation</td>
<td>02 07 04</td>
<td>materials unsuitable for consumption or processing</td>
<td>02 02 01</td>
<td>biodegradable waste</td>
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<tr>
<td>1.0 Household and similar wastes</td>
<td>03 01</td>
<td>mixed municipal waste</td>
<td>03 02</td>
<td>waste from markets</td>
<td>03 07</td>
<td>bulky waste</td>
<td>03 99</td>
<td>municipal wastes not otherwise specified</td>
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<td></td>
<td>03 03</td>
<td>street-cleaning residues</td>
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</tr>
</tbody>
</table>
Results and conclusions

- 17 countries reported data in 2014 on 2012
- Challenges
  - Data on "waste containing food waste" rather than "food waste"
  - Limited accuracy of results at detailed level of economic activities and waste items
  - Quantification of food waste in mixed municipal waste
- Experimental data collection => no official food waste statistics
- Report to be published on Eurostat website
- Plug-in to be repeated
Sources of "waste containing food waste" estimate based on food waste plug-in
Material flow accounts?

Material Flow Accounts of Japan in Fiscal Year 2000
(Unit: million tons)

- Total Material Input: 2150
- Natural Resources and the like: 256
- Imports: 788
- Domestic Resources: 1124
- Total Material Input Adjusted: 2386
- Net Addition to Stock: 1107
- Energy Consumption: 420
- Food Consumption: 127
- Generation of Waste and the like: 600
- Reduction: 241
- Final Disposal: 56
- Returned to Nature: 84
- Cyclical Use [reuse + recycle]: 218

(Source: Ministry of the Environment in Japan, adapted to account for other inputs)
Diagram produced with e!Sankey
Thank you for your attention

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