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Food Waste Statistics in Hungary

Methodology Development

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Required data

TABLE 1: Data on food waste amounts Unit: tonnes of fresh mass												
Country:												
Reference year:	2018											
Stage of the food supply chain	Total food waste according to Article 1 of 2019/1597*											
	Total food waste**	Standard footnote	Confidentiality footnote	Explanatory footnote	Of which: edible food waste***	Standard footnote	Confidentiality footnote	Explanatory footnote	Food drained as or with wastewaters	Standard footnote	Confidentiality footnote	Explanatory footnote
Primary production												
Processing and manufacturing												
Retail and other distribution of food												
Restaurants and food services												
Households												
Total												

Cell shading:

White: Data provision is mandatory.
Light blue (cyan): Data provision is voluntary.
Light orange: footnotes (only to be filled-in when relevant)
Light grey: The calculation of data is automatic and cannot be edited.

* Food waste as referred to in Article 1 of Commission Delegated Decision (EU) 2019/1597. Food waste reported here shall exclude amounts of *food losses* and *food drained as or with wastewaters*. As the unit is in tonnes of fresh mass, the food waste amounts shall include also an estimate of the water content when it was in the status of food fresh mass. Data on *food drained as or with wastewaters* are reported separately, also in tonnes of fresh mass.

** Total food waste including edible and inedible parts of the food but excluding food drained as or with wastewaters

*** Amounts of food waste excluding the inedible parts of the food



Methodological research on food waste I.

Definitional issues

- FUSION's definitional framework accepted
 - 'Any substance or product, whether processed, partially processed or unprocessed, intended to be, or reasonably expected to be eaten by humans'
 - Edible and inedible parts included, entire supply chain included

Potential data sources in primary production

- Harvested loss for economic account for agriculture
 - Crop balance: difference between the areas harvested and non-harvested and the crop ratio (HU – cca 40.000 tons of loss per year)
- Animal by-products
 - Only one protein processor company in Hungary, according to their collection a total of 253.000 tons of animal by-products were collected in 2016

Methodological research on food waste II.

Potential data sources in processing and manufacturing

- Retail sector

- Food can be sold before expiry, but following that (including passing of „best before” date) it has to be withdrawn from the shelves
- Redistribution with Hungarian Food Bank Association (HFBA) saving 4748 tons of food of which 3478 came from retail sector in 2016 ending up as donation for people in need
- EU estimation: 5% of food waste is generated in the commercial sector*
- Survey of HCSO and HFBA among retailers – no far-reaching conclusions, very low response rate, food waste becomes donation or disposed of in bioenergy production, landfill and/or composting



Methodological research food waste III.

Potential data sources in restaurants and food services

- Restaurants (HoReCa)
 - No breakdown available on the production of food waste: in case of smaller units, it is probably disposed of as municipal mixed waste.
 - Only data available is on cooking oil and animal-by-products, coming from a major player of such waste collection (based on their data cca. 135 kg of used cooking oil, and 330 kg food waste is generated on average in Budapest, per HoReCa unit, per month)
- Public food services (schools, health care etc.)
 - Serving cca 1,5-2 million people per day, approx. 6500 establishments, 3000-3500 kitchens
 - Quality driven public catering program by National Food Chain Safety Office >> 2127 serving kitchens - serving 256.746 people - were evaluated including questions on food waste. Findings:
 - Less food waste is generated in cooking kitchens, more in serving kitchens
 - 0.1 kg of food waste /person/day was calculated
 - 12% (33 tons per day) of the food received from cooking kitchens became food waste at the serving kitchen

Final data sources for production and processing

- EU reporting requirements:

- Not necessary to measure *avoidable* food waste, only food waste.
- In addition, guidance given on the exact LoW codes and NACE codes to be considered.*



- Primary production and processing and manufacturing:

players are obliged to submit food waste data by LoW and NACE codes to the Single Waste Management Information System**

- Households: waste composition analysis is made by the line ministry giving approximate*** information on the proportion of food waste within municipal waste (19,55% - Spring 2018, 17,51% - Winter 2018)

- ***waste similar to household waste is also included

* Commission Delegated Decision (EU) 2019/1597 of 3 May 2019 supplementing Directive 2008/98/EC of the European Parliament and of the Council as regards a common methodology and minimum quality requirements for the uniform measurement of levels of food waste

** Run by the Ministry of Innovation and Technology.



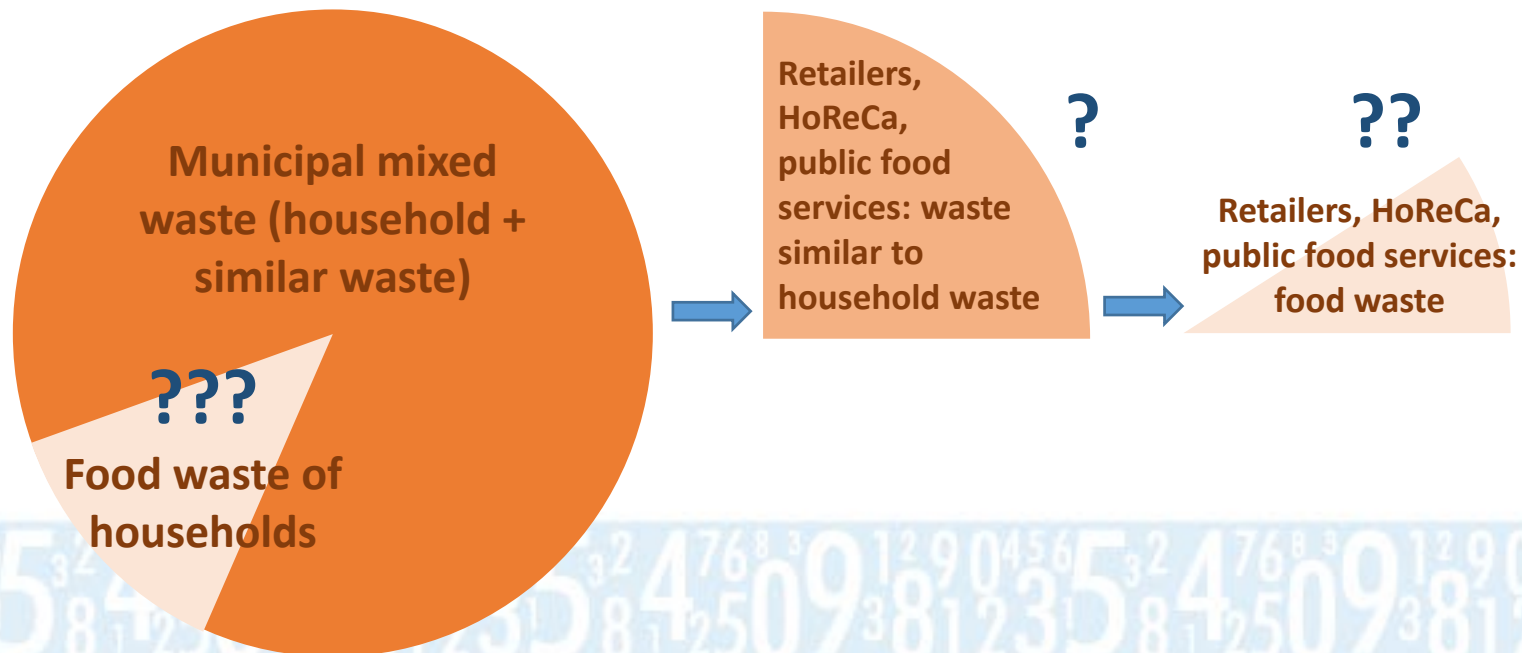
Further steps I.

Amount of **food waste within municipal waste similar to household waste** generated by HoReCa, public food services and retail sector

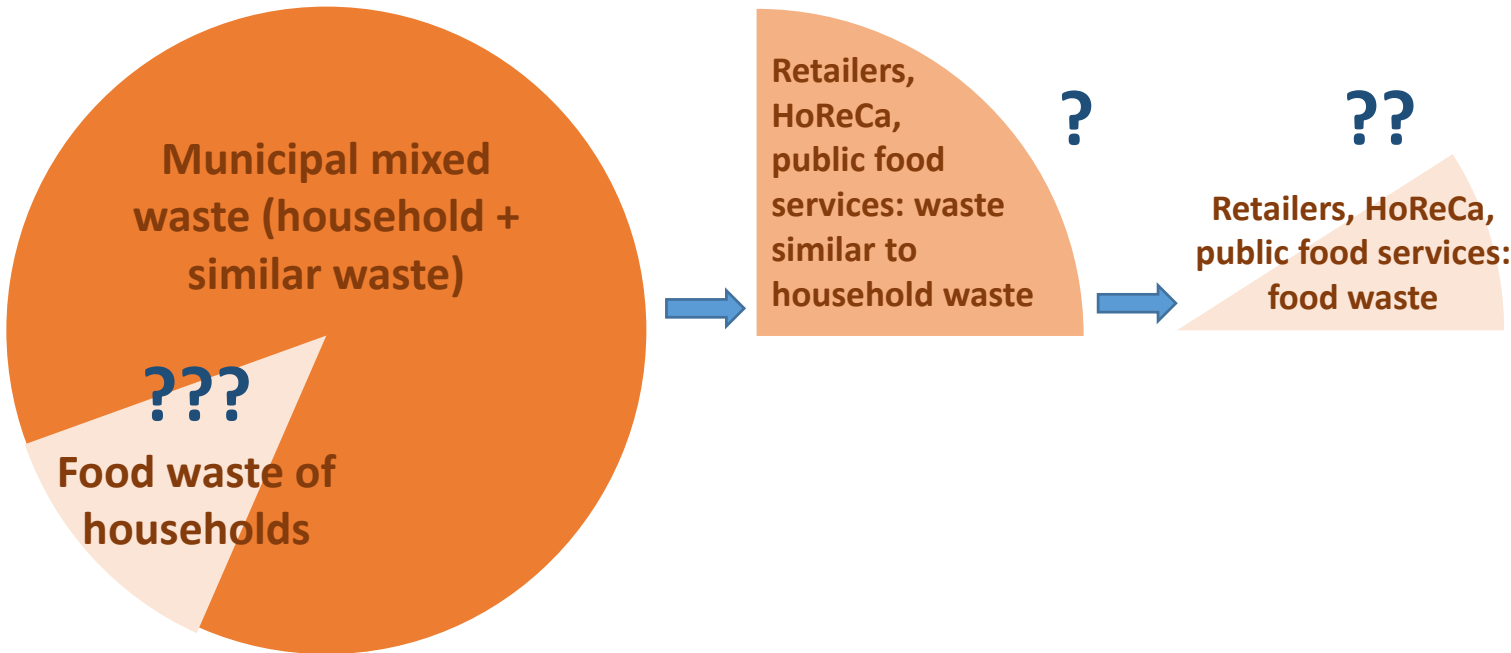
- Smaller units dispose of food waste together with the municipal mixed waste. The proportion, however, is different from overall municipal waste composition analysis.

Amount of **household food waste**

- Even though there is data from waste composition analysis on the proportion food waste in municipal waste, it does also includes food waste similar to household food waste.



Further steps II.



? Estimation source:

- Client database of National Waste Management Company (billing) >> NACE separation based on tax no. of legal units + the size of waste bin contracted by them
- National Food Chain Safety Office research on public food services' practices

?? Estimation source:

- International research findings, expert estimation, or a small sample research to be made

??? Calculation:

- Food waste in municipal waste (based on waste composition analysis) – food waste of retailers, HoReCas, public food services = Food waste of households

Further steps III.

Amount of **cooking oil disposed of by households**

- The Hungarian National Oil Company has developed a network at gas stations for disposal of cooking oil by households. They shall be contacted for data.



Conclusions and recommendations

- Highly complex statistical domain
 - Cannot be based on traditional data collections
 - Many institutions could be involved
- Different stages/breakdowns needs different sources and methods
- No standard methods or sources are available or applicable
- Group of experts can identify institutions, organisations, NGOs with possible data or information



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Thank you for your attention!