Understanding food waste in the home: untangling the spaghetti

Tom Quested
28th June 2017
Food and drink material hierarchy

Prevention
- Waste of raw materials, ingredients and product arising is reduced – measured in overall reduction in waste.
- Redistribution to people.
- Sent to animal feed

Recycling
- Waste sent to anaerobic digestion; or
- Waste composted

Recovery
- Incineration of waste with energy recovery.

Disposal
- Waste incinerated without energy recovery.
- Waste sent to landfill.
- Waste ingredient/product going to sewer.

Most preferable option

Least preferable option
Impacts of food waste

- Globally c. 1/3rd food production is lost or wasted
- UK: more than 10 million tonnes:
  - Costs £17 billion
  - 20 million tonnes of greenhouse gas emissions
  - Large water and land footprints
Post-farm-gate waste in the UK (in millions of tonnes)

- Household: 7.3 Mt; 71%
- Manufacturing: 1.7 Mt; 17%
- Retail: 0.9 Mt; 9%
- Hospitality and food service: 0.25 Mt; 2%
- Food waste in litter: 0.1 Mt; 1%
- Wholesale: 0.04 Mt; <1%
Complexity around wasting food in the home

- People don’t set out to waste food
- Influenced by wide range of activities
- Each activity affected by many factors

A conceptual framework for food waste in the home

**Indirect influences**
- Time availability
- Cooking and food-management skills
- A desire to eat healthily
- Personal preferences (‘fussy eating’)

**Direct influences**
- Behaviours that influence food waste: planning, buying, storing, preparing, using leftovers and their interactions
- Amount and types of food and drink brought into the home

**Amount of avoidable household food waste**

**Environmental and economic impact of food waste**

*There are likely to be other indirect influences, which have not been measured in this report.

From: *Household Food and Drink Waste – A People Focus*
Implications of complexity

- Range of research techniques required
- ‘Systems’ focus (e.g. *The Milk Model*)
- Not always obvious what will lower amount of food wasted
Current challenges

- What interventions reduce amount of food wasted most effectively?
- Cost-effective and accurate measurement of food waste in the home
- How does preventing food waste interact with other food-related topics (e.g. healthy eating)?
How to avoid this situation...

Reproduced from xkcd
Potential Collaboration

- RCUK policy internship scheme for PhDs – placements at WRAP: http://www.rcuk.ac.uk/skills/policy-internships-scheme/
- Seed projects => something bigger
Handy Links

- WRAP’s research and summaries on food waste: [http://www.wrap.org.uk/content/research-and-reports-handy-summaries-grocery-sector](http://www.wrap.org.uk/content/research-and-reports-handy-summaries-grocery-sector)
- WRAP’s household food waste research: [http://www.wrap.org.uk/content/food-waste-resource-listing](http://www.wrap.org.uk/content/food-waste-resource-listing)
- Courtauld Commitment (voluntary agreement relating to food): [http://www.wrap.org.uk/content/courtauld-commitment-2025](http://www.wrap.org.uk/content/courtauld-commitment-2025)
- Love Food Hate Waste (household food waste campaign): [https://www.lovefoodhatewaste.com/](https://www.lovefoodhatewaste.com/)
Summary

- Food waste a critical issue
- For UK, household food waste dominates
- Complex issue – multiple-disciplinary research
- Challenges around understanding effectiveness of interventions, measurement & interactions
- Good opportunities for collaboration
Thank you!

www.wrap.org.uk
Tom Quested
tom.quested@wrap.org.uk
+44 (0)1295 817890