Background to the Food Waste Study and Headlines

Background

The Food Waste Study took place in two areas of Bolton over a year, from October 2023 until October 2024, and involved 130 households.

Households knew each other through their community connection and were supported through the study by a leader from their community

What did the households do?

The households filled in a food waste diary over 7 days to understand what and why food was wasted in their households.

The community then developed activities to help reduce food waste. Activities included a top tips leaflet **www.bolton.gov.uk/sustainability-1/bolton-food-waste-study** and a community workshop. They then repeated the diary to see if their household food waste had changed.

What did the participants say about taking part in the study?

Participants stated that the food waste study made them more mindful and raised awareness of how much food was wasted.

Carbon footprint of food waste

Producing, packaging and transporting food makes a significant contribution to climate change through the energy and resources it uses. Measuring the carbon footprint of this is one way of understanding its impact. Reducing our food waste is an action that could make a significant contribution in our fight against climate change.

The food waste study team found that households on average wasted about 1 kilo of food a week, equivalent to up to 4 kilos of carbon dioxide. For the whole of Bolton (a large town in the North West of England), this would be equivalent to approximately 37,804 tonnes of carbon dioxide over the year. We would need to plant 1,171,924 trees[3] to absorb this!

By taking part in the food waste study, households, on average reduced their food waste by 310 grams. If all the households[4] in Bolton did the same, we would remove approximately 2,344 hot air balloons worth of carbon dioxide from the atmosphere each year.[5]

On average, households wasted about **1 kilo** of food a week

Equivalent to **4 kilos** of carbon dioxide a week in wasted resources[1]

FOR THE WHOLE OF BOLTON[2], THIS WOULD BE EQUIVALENT TO APPROXIMATELY...

37,804 tonnes OF CARBON DIOXIDE OVER THE YEAR.

The main reasons given in the household food waste diaries, across the two areas, were:

- The **portion sizes** were too big i.e. served too much, the portion sizes from takeaways were too large, or the portions for children were not appropriate.
- The food had **gone off**, food diaries mentioned mould and changes in the texture of the food.
- The food was **not wanted** was often stored with the intention of using and then not eaten - other food was preferred.
- **Other reasons** included buying too much, cooking too much, food going past its date, visitors and storage.

Food waste study headlines

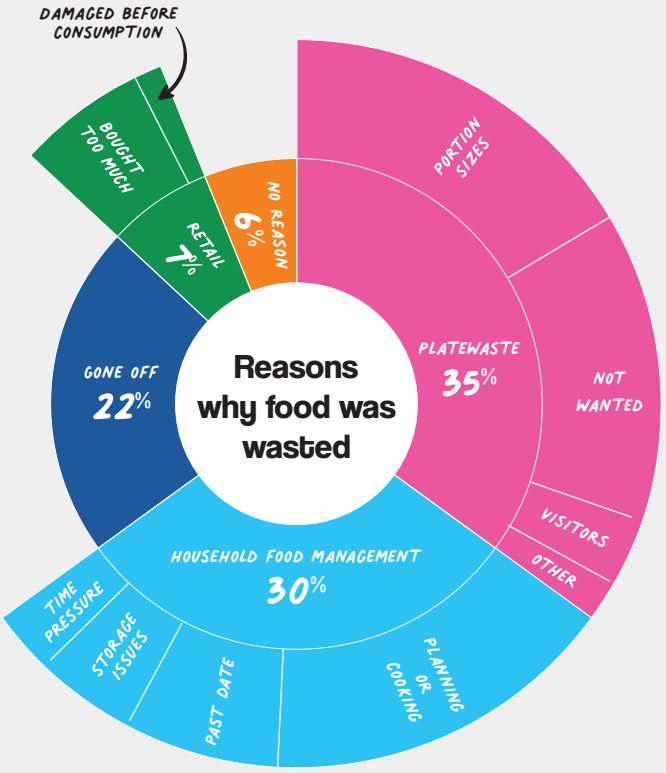
Overall, households significantly reduced their food waste from 1095 g to 788g across the two areas over 7 days. There was, however, a difference in the two areas.

- **In Area 1** (49 households), this significantly reduced from 1065g to 599g over 7 days.

Reduced food waste over 7 days

- **In Area 2** this reduced from 1125g to 929g but was not significant.

Reduced food waste over 7 days



[1] Quested, T., & Ingle, R. (2013). West london food waste prevention campaign evaluation report. Oxon: Waste & Resources Action Program.
[2] www.nextbigfuture.com/2018/11/average-american-family-emits-over-four-hot-air-balloon-volumes-of-co2.html
[3] 1 tonne of CO2 can be offset by 31 to 46 trees. www.encon.eu/en/calculation-co2
[4] Household and resident characteristics, England and Wales - Office for National Statistics 2021 estimates that there are 181,750 households in Bolton
[5] www.nextbigfuture.com/2018/11/average-american-family-emits-over-four-hot-air-balloon-volumes-of-co2.html