# HOUSEHOLDS CONSERVE RESOURCES

## Past drivers

- The amount of waste generated is influenced by:
  - the rate of income and consumption growth;
  - consumption preferences; and
  - resource efficiency and waste avoidance.
- Household recycling rates have increased and are determined by individual behaviour and the provision of recycling facilities within local authorities. In recent years, local authorities have been increasing recycling provision and food waste collections for households.

## Where are we now?

- There has been an overall decrease of 5.6% in the amount of household waste generated since 2011, with little change over the last 4 years.
- Household waste recycling rates have increased at a slowing pace over time. Scottish household waste recycling rate in 2018 was 44.7%, decreasing from 45.5% in 2017.
- There has been a sharp increase in the proportion of households using local authority-provided food caddies, rising from 26% in 2012 to 46% in 2015 and 56% in 2016. In 2017, 55% of households reported using local authority-provided food caddies.

## Where do we want to be?

- Build a strong economy, protect our resources and support the environment.[1]

## Current initiatives

- Targeting public engagement: For example through the Recycle for Scotland and Love Food Hate Waste campaigns, and the Low Carbon Scotland: A behaviours framework.
- Promoting community action: Through the Zero Waste Towns initiatives and the Climate Challenge Fund.
- Attaching a value to goods previously seen as disposable: Plastic carrier bag charge.
- Household recycling charter: Brings greater consistency to local authority recycling services.

## Future drivers

- A number of barriers prevent greater use of waste as a resource, such as: product design (using materials that cannot be recycled, repaired or recovered); infrastructure; consumer behaviour; and changes in demand.
- Public concern around plastic marine litter has shaped priorities and may open up new ways to engage households. Proposals to introduce a deposit return scheme and a charge for single-use coffee cups.

## Key evidence gaps

- Improve our understanding of the value and flow of products, materials and wastes through our economy, from point of production to final destination.
- Evidence to inform how we push on from improvements to date to meet ambitious waste and recycling targets. Significant gaps remain in our knowledge on householder behaviour, such as differential impacts of interventions across households, or the persistence of change over time.

[1] Making Things Last: a circular economy strategy for Scotland

## A Introduction

1. In Scotland we consume large amounts of materials and generate a lot of waste. This uses up finite resources and causes pollution. Like most developed countries, the Scottish economy relies heavily on domestic consumption with waste produced from packaging and the disposal of items when they are no longer wanted. For example, in the year to Q4 2017 consumer spending contributed 2.2 percentage points to the overall growth in Scottish GDP of 2.9%.[i]

2. Waste is produced from a variety of sources including households, industry, construction and agriculture. Waste can have a serious impact on the environment through the loss of finite resources and the generation of pollutants. Litter and particularly marine litter, are increasingly recognised as having a significant environmental impact.

3. A reduction in the amount of waste generated in Scotland is an indicator of greater resource efficiency and more sustainable consumption behaviour - addressing the first step in the waste hierarchy ('Prevent, Reuse, Recycle, Recover'). Recycling is another means to reduce Scotland's waste impact by transforming waste into new and useful products. The greatest carbon impacts occur in the production phase, waste prevention will therefore have the most impact on reducing greenhouse gas emissions from waste.

4. Waste management accounted for around 5% of Scotland's net greenhouse gas emissions in 2016, so reducing the impact of waste types that have the largest contribution to this will help Scotland meet its climate change targets. Food waste is the most carbon intensive waste material, as in 2017 it accounted for only 16% of household waste by weight, but 32% of the waste carbon impacts. By preventing waste on the one hand, and recycling more of what waste remains, the carbon impacts of Scotland's household waste fell 2% from 2017 to 2018, resulting in the lowest recorded carbon impacts for household waste to date.[ii]

## B Recent trends

5. Around a fifth of all waste in Scotland comes from households, with the amount generated in Scotland decreasing by 2% (55,574 tonnes) between 2017 and 2018 and 7.7% (201,513 tonnes) in the amount of household waste generated since 2011, which was the first year comparable data was collected.[iii]

6. Household waste recycling rates have increased at a slowing pace over time. The household waste recycling rate in 2017 was 45.6%, increasing from 45.0% in 2016.[iv] Using the previous definition of recycling, which included composting to a lower standard,[v] the rate increased from 40.1% in 2011 to 46.1% in 2017.

7. There has been a sharp increase in the proportion of households using local authority-provided food caddies, rising from 26% in 2012 to 55% in 2017. Around 9% of households dispose of their food waste by home composting, which is a similar proportion to previous years.[vi]

8. The Carbon Metric shows how waste reduction and sustainable waste management can play a critical role in the fight against climate change. Despite large annual fluctuations in waste generated, improved recycling and declining use of landfill continues to reduce the overall carbon impact of all waste in Scotland which has fallen 26% or 3.9 $MtCO_2e$ (million tonnes of carbon dioxide equivalent) since 2011.[vii]

9. Household waste accounts for around 20% of all Scottish waste by tonnage, but a growing majority of the carbon impacts. The five most carbon intensive waste materials made up under a half of Scotland's waste by weight in 2017, but 83% of associated carbon impacts. Food waste accounted for 16% of household waste by weight, but 32% of household waste carbon impacts. Textile waste made up just 3% of household waste arisings, but 28% of the carbon impacts.[viii]

## C Past drivers of change

10. Three key factors influence the amount of waste generated: rate of income and consumption growth; consumption preferences; and resource efficiency and waste avoidance.

11. Increased recycling rates and reduced generation of waste has had the effect of reducing landfill rates. These changes are likely to have partly been the result of the increases to landfill taxes. Landfill tax is intended to encourage waste producers to produce less waste and promote recycling and waste recovery. Methods of food waste disposal can also have an impact on the tonnage of biodegradable waste sent to landfill.

12. The recycling rate of households is a combination of an individual's behaviour and the provision of recycling facilities within local authorities. In recent years, local authorities have been increasing the provision of recycling facilities for households. For example, provision of food waste collection services has increased over the last few years, and Zero Waste Scotland estimate that 80% of Scottish households now have access to a food waste collection service. However, provision of these services varies across local authorities. In some rural areas, home composting is being encouraged as an alternative to a street collection service.

## D Future drivers

13. There are still a number of barriers which have prevented greater use of waste as a resource in Scotland. These include:
    - Product design (using materials that cannot be recycled, or restricting easy repair or recovery of materials);
    - The infrastructure (fragmented collection systems and insufficient facilitates to sort and process valuable materials);
    - Consumer behaviour (the "throwaway" consumer culture and incorrect use of recycling facilities); and
    - Changes in demand, often driven by new technology, which leads to products becoming obsolete and useless.

14. Scotland's ability to influence some of these factors is limited, as many goods we use are sourced and manufactured in other parts of the world. Therefore the waste associated with their production is not visible to us and remains in the country where a product came from.

## E Current initiatives

15. The Circular Economy strategy "Making things last": Highlighted a range of activities which will help change the behaviour of households in order to better conserve resources which will protect our environment.

16. Targeting public engagement: For example through the Low Carbon Scotland: A behaviours framework, and the Recycle for Scotland and Love Food Hate Waste campaigns.

17. Promoting community action: The Climate Challenge Fund includes waste prevention, and the Zero Waste Towns initiatives developed by Zero Waste Scotland.

18. Attaching a value to goods previously seen as disposable: Plastic carrier bag charge, proposals to introduce a deposit return scheme and a charge for single-use coffee cups.

19. Household recycling charter: Brings greater consistency to local authority recycling services.

**Endnotes**

i Quarterly National Accounts Scotland, Quarter 4 2017, Scottish Government http://www.gov.scot/Resource/0053/00535575.pdf

ii The Carbon Footprint of Scotland's Household Waste - 2017 Household Carbon Metric Report, ZWS, https://www.zerowastescotland.org.uk/sites/default/files/2017%20Carbon%20Metric%20Household%20Waste%20Brief.pdf

iii Household waste – summary data 2017, SEPA https://www.sepa.org.uk/media/378862/2017-household-waste-commentary.pdf

iv Household waste – summary data 2017, SEPA https://www.sepa.org.uk/media/378862/2017-household-waste-commentary.pdf

v Includes compost not meeting the BSI PAS 100/110 standard.

vi Scottish Household Survey 2017 Annual Report https://www.gov.scot/publications/scotlands-people-annual-report-results-2017-scottish-household-survey/pages/11/

vii The Carbon Footprint of Scotland's waste, 2016 Carbon Metric: Annual Report and Technical Update, Zero Waste Scotland https://www.zerowastescotland.org.uk/sites/default/files/2016%20Carbon%20Metric%20Technical%20Report.pdf

viii The Carbon Footprint of Scotland's Household Waste - 2017 Household Carbon Metric Report, ZWS, https://www.zerowastescotland.org.uk/sites/default/files/2017%20Carbon%20Metric%20Household%20Waste%20Brief.pdf

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