



HOUSE OF LORDS

Environment and  
Climate Change Committee

---

1st Report of Session 2022–23

# **In our hands: behaviour change for climate and environmental goals**

---

Ordered to be printed 7 September 2022 and published 12 October 2022

---

Published by the Authority of the House of Lords

### *Environment and Climate Change Committee*

The Environment and Climate Change Committee was appointed by the House of Lords in each session to consider the environment and climate change.

### *Membership*

The Members of the Environment and Climate Change Committee are:

[Baroness Boycott](#)

[Lord Browne of Ladyton](#)

[Lord Cameron of Dillington](#) (until 19 January 2022)

[Baroness Chalker](#)

[Lord Colgrain](#)

[Lord Grantchester](#) (from 19 January 2022)

[Lord Lilley](#)

[Lord Lucas](#)

[Baroness Northover](#)

[Bishop of Oxford](#)

[Baroness Parminter](#) (Chair)

[Duke of Wellington](#) (from 19 January 2022)

[Lord Whitty](#)

[Baroness Young of Old Scone](#)

### *Declaration of interests*

See Appendix 1.

A full list of Members' interests can be found in the Register of Lords' Interests:

<http://www.parliament.uk/mps-lords-and-offices/standards-and-interests/register-of-lords-interests>

### *Publications*

All publications of the Committee are available at:

<https://committees.parliament.uk/committee/515>

### *Parliament Live*

Live coverage of debates and public sessions of the Committee's meetings are available at:

<http://www.parliamentlive.tv>

### *Further information*

Further information about the House of Lords and its Committees, including guidance to witnesses, details of current inquiries and forthcoming meetings is available at:

<http://www.parliament.uk/business/lords>

### *Committee staff*

The staff who worked on this inquiry were Connie Walsh (Clerk), Oliver Rix (Policy Analyst) Laura Ayres (Committee Operations Officer) and Jo Herschan (POST Fellow).

### *Contact details*

All correspondence should be addressed to the Environment and Climate Change Committee, Committee Office, House of Lords, London SW1A 0PW. Telephone 020 7219 6798. Email

[hlenviroclimate@parliament.uk](mailto:hlenviroclimate@parliament.uk)

### *Twitter*

You can follow the Committee on Twitter: [@HLEnviroClimate](#)

### *Dedication*

*We would like to dedicate this report to Lord Puttnam, the celebrated film producer, educationalist and environmentalist, who participated in the work of our Committee and the wider House until he retired on 27 October 2021.*

## CONTENTS

---

	<i>Page</i>
<b>Summary</b>	<b>3</b>
Key messages in this report	5
<b>Chapter 1: Introduction</b>	<b>7</b>
Our inquiry	7
Structure of this report	8
<b>Chapter 2: Behaviour change: why, what and who</b>	<b>10</b>
Why is behaviour change needed?	10
Figure 1: Average lifestyle carbon footprints by consumption domain	10
What kinds of behaviour change are needed?	11
Figure 2: Abatement by person/organisation making decisions in Sixth Carbon Budget	12
Table 1: Abatement from top 20 actions requiring consumer engagement in the Sixth Carbon Budget	13
Who needs to change behaviour?	15
<b>Chapter 3: Current position of the public</b>	<b>18</b>
Concern	18
Understanding	19
Appetite for change	20
Behavioural trends	21
Tracking public attitudes and behavioural trends	22
<b>Chapter 4: Theories, drivers and levers of change</b>	<b>24</b>
Theories, models and drivers of behaviour	24
Levers of change	27
<b>Chapter 5: Learning from other policy areas</b>	<b>31</b>
Smoking, obesity and pensions	31
Corporate influence	32
COVID-19 pandemic	33
<b>Chapter 6: Delivering behaviour change in partnership</b>	<b>35</b>
Civil society: community groups, charities and faith groups	35
Box 1: Examples of civil society action	36
Local government	38
Box 2: Examples of local authority action	39
Business	41
Box 3: Examples of business action	42
Devolved governments and administrations	44
<b>Chapter 7: Challenges and opportunities in key behaviour change areas</b>	<b>47</b>
Travel	47
Food	54
Energy use at home	62
What we buy	68
<b>Chapter 8: Communications, public engagement and education</b>	<b>74</b>
Communications	74
The information environment	81

Public engagement	85
Education	88
<b>Chapter 9: The Government's approach and role</b>	<b>90</b>
The Government's overall approach	90
Coordination within Government	96
Coordination of other actors	102
<b>Summary of conclusions and recommendations</b>	<b>104</b>
<b>Appendix 1: List of Members and declarations of interest</b>	<b>116</b>
<b>Appendix 2: List of witnesses</b>	<b>118</b>
<b>Appendix 3: Call for evidence</b>	<b>126</b>
<b>Appendix 4: High-level summary of engagement activity in this inquiry</b>	<b>129</b>
<b>Appendix 5: Minutes of proceedings on the report</b>	<b>131</b>
<b>Appendix 6: Glossary</b>	<b>137</b>

Evidence is published online at <https://committees.parliament.uk/work/1621/mobilising-action-on-climate-change-and-environment-behaviour-change/publications/> and available for inspection at the Parliamentary Archives (020 7219 3074).

Q in footnotes refers to a question in oral evidence.

## SUMMARY

The twin crises of climate change and nature loss demand an immediate and sustained response. The Government has committed to reaching net zero by 2050 and to leave the environment in a better condition for future generations.

People power is critical to meet those targets. Analysis by the Committee on Climate Change (CCC) suggests that without changes to people's behaviours now, the target of net zero by 2050 is not achievable. Drawing on the CCC's assessment, we have identified that 32 per cent of emissions reductions up to 2035 require decisions by individuals and households to adopt low carbon technologies and choose low-carbon products and services, as well as reduce carbon-intensive consumption.<sup>1</sup>

In our inquiry, we looked at evidence about the ways in which people can be encouraged to change their behaviours and the action the Government has been taking to do that. Whilst the Government has introduced some policies to help people adopt new technologies, like electric cars, these have not been replicated in other policy areas and there is a reluctance to help people to cut carbon-intensive consumption. Time is not on our side, and there is too great a reliance on as yet undeveloped technologies to get us to net zero.

Polling shows the public is ready for leadership from the Government in this space. People want to know how to play their part in tackling climate change and environmental damage, and the Government is in a unique position to guide the public in changing their behaviours. The Government should provide clarity to individuals about the changes we need to make, in how we travel, what we eat and buy, and how we use energy at home, and should articulate the many co-benefits to health and wellbeing of taking those steps. A public engagement strategy, both to communicate a national narrative and build support for getting to net zero, is urgently required. Behavioural science evidence and best practice show that a combination of policy levers, including regulation and fiscal incentives, must be used by Government, alongside clear communication, as part of a joined-up approach to overcome the barriers to making low-carbon choices. A behavioural lens must be applied consistently across all government departments, as too many policies, from planning and building standards to advertising regulations, are still encouraging high carbon and low nature choices.

Fairness is key to effective behaviour change and now more than ever must be at the heart of policy design. As the country faces a cost-of-living crisis, the Government must tailor behaviour change interventions to avoid placing a burden on those who can least afford it. The Government must also work with the many groups and organisations at different levels of society who have a critical role in securing behaviour change for climate change and the environment. Businesses are in a position to enable behaviour change through increasing the affordability and availability of greener products and services and engaging customers and employees, but need direction from government if they are to act against their immediate financial interests. Numerous civil society organisations and local authorities work tirelessly to deliver behaviour

<sup>1</sup> As we explain in Chapter 1, we are pleased to have worked with the CCC to reach this figure since we adopted a narrower focus on individual and household-level behaviour change compared to the CCC's Sixth Carbon Budget and 2022 Progress Report.

change projects on a local level, and their efforts should be both supported and celebrated better by central Government.

Lessons can be learned from both successful and unsuccessful behaviour change interventions in other policy areas. Most notably, the widespread behaviour change brought about by the COVID-19 pandemic. We recognise that the changes demanded by the pandemic were seen as a short-term response to a short-term emergency, nonetheless it will be a major missed opportunity if the Government does not seize the chance to evaluate behaviour change interventions implemented during the pandemic and apply lessons learned.

The machinery of government through which climate and environment policy, including behaviour change, is designed and delivered lacks transparency and clarity. The current system relies on a muddle of groups, boards and committees whose remits and relationships with one another are opaque. Behaviour change interventions will not be effective nor consistent unless existing structures for cross-government coordination of climate and environment policy are overhauled and made more transparent and accountable to parliament and the public.

The Government's approach to enabling people to change behaviours risks a failure to meet statutory climate change and environment goals. Swift action to rectify the approach is required.

**Key messages in this report**

- Behaviour change is essential for achieving climate and environment goals, and for delivering wider benefits.
- The Government's current approach to enabling behaviour change to meet climate and environment goals is inadequate to meet the scale of the challenge.
- The public want clear leadership on the areas of behaviour change they should prioritise, and they want the Government to lead a coordinated approach to help them adapt by making change easier and fairer.
- Priority behaviour change policies are needed in the areas of travel, heating, diet and consumption to enable the public to adopt and use green technologies and products and reduce carbon-intensive consumption.
- There is a need for greater leadership and coordination across Government departments and with wider society on behaviour change for climate and environmental goals.
- The Government needs to provide a positive vision and clear narrative on how the public can help achieve climate and environment goals, and to lead by example.
- Information is not enough to change behaviour; the Government needs to play a stronger role in shaping the environment in which the public acts, through appropriately sequenced measures including regulation, taxation and development of infrastructure.
- Fairness is key to effective behaviour change.
- Businesses have a critical role to play in enabling behaviour change through increasing the affordability and availability of greener products and services, and engaging customers and employees.
- Government should also support and celebrate civil society organisations, faith communities and local authorities delivering local behaviour change projects.
- Government should learn from examples of where it has effectively enabled behaviour change, including during the COVID-19 pandemic, as well as from past failures.



# In our hands: behaviour change for climate and environmental goals

## CHAPTER 1: INTRODUCTION

---

### Our inquiry

1. In June 2019, the Government enshrined the net zero target in law, requiring a 100 per cent reduction of UK greenhouse gas emissions by 2050 compared to 1990 levels.<sup>2</sup> The Government has also committed to cut these emissions by 78 per cent by 2035: just 13 years away.<sup>3</sup>
2. The Committee on Climate Change (CCC)<sup>4</sup> was clear in its advice for the 2035 target that “more than ever before, future emissions reductions will require people to be actively involved. This need not entail sacrifices. Many people can make low-carbon choices, about how they travel, how they heat their homes, what they buy and what they eat.”<sup>5</sup>
3. The CCC was also clear on the focus and leadership required from the Government in all areas, including behaviour change:

“The utmost focus is required from government over the next ten years. If policy is not scaled up across every sector; if business is not encouraged to invest; if the people of the UK are not engaged in this challenge—the UK will not deliver Net Zero by 2050. The 2020s must be the decisive decade of progress and action.”<sup>6</sup>
4. Alongside legally binding targets to reduce emissions, the UK has—and is due to establish—long-term environmental goals and targets. The Government set out goals to achieve clean air, use resources from nature more sustainably and efficiently, and minimise waste in the 25 Year Environment Plan in 2018.<sup>7</sup> At the time of writing the Government is developing long-term targets for environmental improvement in air quality, water, biodiversity and resource efficiency and waste as required under the Environment Act 2021.<sup>8</sup>

---

2 [The Climate Change Act 2008 \(2050 Target Amendment\) Order 2019](#)

3 The Carbon Budget Order 2021 [article 2](#)

4 The CCC is the Government’s statutory adviser on climate change established by the Climate Change Act 2008.

5 CCC, *The Sixth Carbon Budget: The UK’s path to Net Zero* (December 2020), p 13: <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf> [accessed 7 June 2022]

6 *Ibid.*, p 5

7 The plan includes goals to achieve clean air, clean and plentiful water, thriving plants and wildlife, a reduced risk of harm from environmental hazards such as flooding and drought, using resources from nature more sustainably and efficiently, and, enhanced beauty, heritage and engagement with the natural environment. It also includes goals to manage pressures on the environment by mitigating and adapting to climate change, minimising waste, managing exposure to chemicals, and, enhancing biosecurity. Defra, *A Green Future: Our 25 Year Plan to Improve the Environment* (January 2018), p 10: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/693158/25-year-environment-plan.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf) [accessed 7 June 2022]

8 At the time of writing the Government’s consultation on proposed targets under the Environment Act had recently closed. The Act requires one or more draft statutory instruments setting the targets to be laid before Parliament on or before 31 October 2022. Environment Act 2021, [section 1, 4](#)

5. In this inquiry we set out to review the evidence about how and why people change their behaviours and to explore the Government's approach to enabling individuals, households and communities to adopt the changes anticipated by the CCC and others to meet net zero, as well as changes to meet the UK's environmental goals. We used a broad definition of behaviour change which includes individual and household choices made as a result of government policies—ranging from communications to regulation and taxation—as well as changes brought about by shifts in social and cultural norms. We considered how individuals and households are being supported to adopt new technologies, switch to more sustainable products and services, change travel modes and reduce carbon-intensive consumption.
6. We found that we cannot rely on large-scale and unproven technologies alone to achieve the transition to net zero. Behaviour change is also needed. We have worked with the CCC to calculate that 32 per cent of emissions reductions up to 2035 relies on decisions by individuals and households, while 63 per cent relies on the involvement of the public in some form.<sup>9</sup> This means the whole country needs to be engaged in this immense challenge—every government department, every layer of devolved and local government, every business, every charity, civil society group and faith community, and every household. Leadership and coordination from the Government are vital.
7. We launched our inquiry on 15 November 2021. We held 13 evidence panels, involving 34 witnesses, and two ministerial sessions, and we received 112 written submissions. We also met with four participants from Climate Assembly UK and students from the six schools on our youth engagement programme, on which more information is available in the public engagement section of Chapter 8 and the appendices.
8. During the course of the inquiry, we took evidence from ministers and departments from the Government led by Prime Minister Johnson. On 6 September 2022, Liz Truss became Prime Minister. We hope the new Prime Minister and her Cabinet find this report useful.
9. Ewa Kmietowicz, a long-time staff member at the Committee on Climate Change who gave evidence to the Committee at the beginning of this inquiry, died earlier in 2022. We extend our deepest sympathies to her family, friends and colleagues.

### Structure of this report

10. This report is structured as follows:
  - Chapter 2 explores the rationale for behaviour change to meet climate and environmental goals, what kinds of change are required and the extent to which different individuals and groups need to, and are able to, make changes.

---

<sup>9</sup> In this report we are concerned with behaviour change by individuals and households, which is a narrower focus compared to the CCC's important consideration of related decisions by businesses and public authorities and of changes requiring public engagement and consent. The 32 per cent statistic is based on Figure 1, written evidence from the CCC ([CCE0112](#)). The 63 per cent statistic is an updated estimate of the statistics given for the two behaviour change-related categories in the CCC's written evidence and in CCC, *Progress in reducing emissions: 2022 Report to Parliament* (June 2022), p 447: <https://www.theccc.org.uk/wp-content/uploads/2022/06/Progress-in-reducing-emissions-2022-Report-to-Parliament.pdf> [accessed 7 September 2022]

- Chapter 3 assesses the implications for government policy of the UK public's level of concern and understanding about climate change and the environment, and people's appetite for changing behaviour.
- Chapter 4 discusses how research on theories, drivers and levers of behaviour change can inform policies.
- Chapter 5 considers lessons that can be drawn from successes and failures in behaviour change interventions in other policy areas including the COVID-19 pandemic, smoking, obesity and pensions.
- Chapter 6 looks at how change can be delivered in partnership with civil society, including faith groups, as well as local government, businesses and devolved governments and administrations.
- Chapter 7 explores the challenges and opportunities of delivering behaviour change in the key areas of travel, food, energy use at home and what we buy.
- Chapter 8 assesses how information communicated by the Government, the wider media and education can influence everyday behaviours and considers the role of public engagement in supporting effective and publicly accepted behaviour change interventions.
- Finally, Chapter 9 evaluates the Government's overall approach to behaviour change to meet climate and environmental goals and considers how coordination can be achieved within Government and with other groups and organisations.

## CHAPTER 2: BEHAVIOUR CHANGE: WHY, WHAT AND WHO

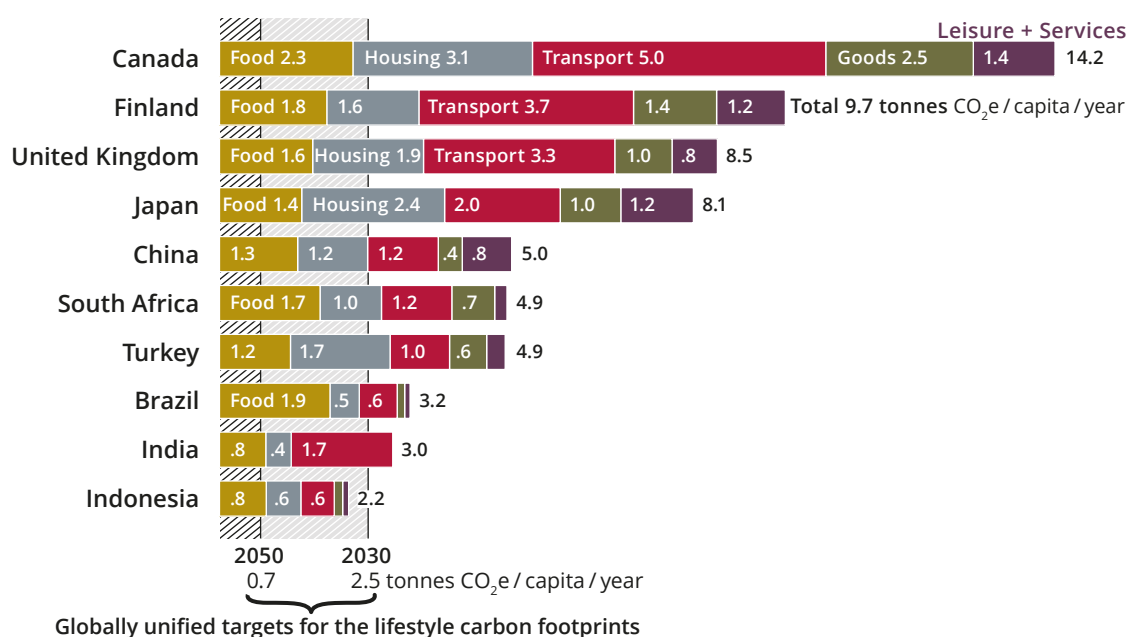
*“The reality is that behaviour change is a part of reaching net zero. It is unarguable.”*

*Sir Patrick Vallance, Government Chief Scientific Adviser*

### Why is behaviour change needed?

11. Behaviour change<sup>10</sup> across the whole population is essential to meet net zero and reduce environmental harms. Government policy and engagement are critical to achieving this level of change, which will produce many other benefits to health and wellbeing.
12. Many witnesses told us behaviour change is needed to achieve net zero emissions by 2050 and to comply with international obligations under the Paris Agreement.<sup>11</sup> Sir Patrick Vallance, Government Chief Scientific Adviser (GCSA), agreed: “The reality is that behaviour change is a part of reaching net zero. It is unarguable.”<sup>12</sup> Dr Viktoria Spaier and Professor Cristina Leston-Bandeiras, both at the University of Leeds, pointed to the gap between estimates of the current average UK individual lifestyle carbon footprint, 8.5 tonnes CO<sub>2</sub> per year, and footprints consistent with emissions reduction targets for 2030 (2.5 tonnes) and 2050 (0.7 tonnes) (as shown in Figure 1 below).

**Figure 1: Average lifestyle carbon footprints by consumption domain**



Source: Written evidence from Dr Viktoria Spaier and Professor Cristina Leston-Bandeiras (CCE0016).

\* Note: Average lifestyle carbon footprint of country estimated as of 2019. The vertical hatching indicates 1.5°C lifestyle footprint targets for 2030 and 2050 (1.5°C without/less use of CCS).

- 10 Witnesses advised the Committee to focus on behaviour change as an outcome or set of outcomes. We discuss this further in the ‘What kinds of behaviour change are needed?’ sub-section.
- 11 Written evidence from Carbon Copy (CCE0008), Climate Outreach (CCE0111), the UCL Centre for Behaviour Change (CCE0033), One Home (CCE0045), and Q 14 (Rob Hopkins). For more information on the Paris Agreement see House of Commons Library, ‘The Paris Climate Change Conference’ (27 September 2016): <https://commonslibrary.parliament.uk/research-briefings/cbp-7393/> [accessed 7 September 2022]
- 12 Q 111 (Sir Patrick Vallance)

13. Witnesses said behaviour change is also needed because future technological innovations cannot be relied upon to deliver all the necessary emissions reductions.<sup>13</sup> Sir Patrick Vallance told us: “Dreaming that something brand new will appear and save us by 2050 is not sensible.”<sup>14</sup>
14. We heard that if efforts to reduce emissions fail, behaviour changes will still be required. Tim Lord, Associate Senior Fellow at the Tony Blair Institute for Global Change, said: “There is not a counterfactual where we carry on as we are and everything is okay. A world of 2.5, 3 or 3.5 degrees of warming will also require significant behavioural changes in other respects.”<sup>15</sup>
15. Environmental degradation—including biodiversity losses and water and air pollution—can be reduced through behaviour change in certain sectors. Henry Dimbleby, author of the UK’s National Food Strategy, told us: “The food system is by far the largest cause of damage to nature. It is the biggest cause of biodiversity collapse, freshwater pollution, freshwater scarcity, deforestation, and clearing out of the oceans.”<sup>16</sup> Others pointed to the reductions in air pollution which could be achieved by supporting public transport use and active travel.<sup>17</sup>
16. The benefits beyond reductions in emissions and environmental impacts which these kinds of changes would bring are often referred to as ‘co-benefits’. Witnesses emphasised that dietary change and increased active travel would deliver health improvements and reduce the burden on the NHS.<sup>18</sup> Professor Dame Theresa Marteau DBE, Director of Behaviour and Health Research Unit at the University of Cambridge, told us:

“With effective changes to behaviour, not only would we start to tackle climate change and be on the path to net zero by 2050, but, because of shared drivers, we would also be improving health and reducing inequalities, and tackling some of the major challenges to population health, including obesity.”<sup>19</sup>

Energy efficiency improvements help reduce household bills, but support has to be provided to help with upfront costs. Other changes which we go on to discuss could deliver local economic benefits.<sup>20</sup>

### What kinds of behaviour change are needed?

17. Behaviour change is often characterised as voluntary changes promoted by information-sharing measures.<sup>21</sup> We were advised instead to define behaviour change as an outcome or set of outcomes. Prof Dame Marteau told us: “When I say behaviour change by intervention I am thinking of any intervention ...

---

13 Written evidence from Dr Viktoria Spaier and Prof Cristina Leston-Bandeiras ([CCE0016](#)) and [Q 128](#) (Dr Kris De Meyer)

14 [Q 111](#) (Sir Patrick Vallance)

15 [Q 113](#) (Tim Lord)

16 [Q 98](#) (Henry Dimbleby)

17 Written evidence from Humanist Climate Action ([CCE0071](#))

18 [Q 3](#) (David Joffe), [Q 80](#) (Angela Terry), [Q 12](#) (Dr Shanon Shah)

19 [Q 41](#) (Prof Dame Theresa Marteau)

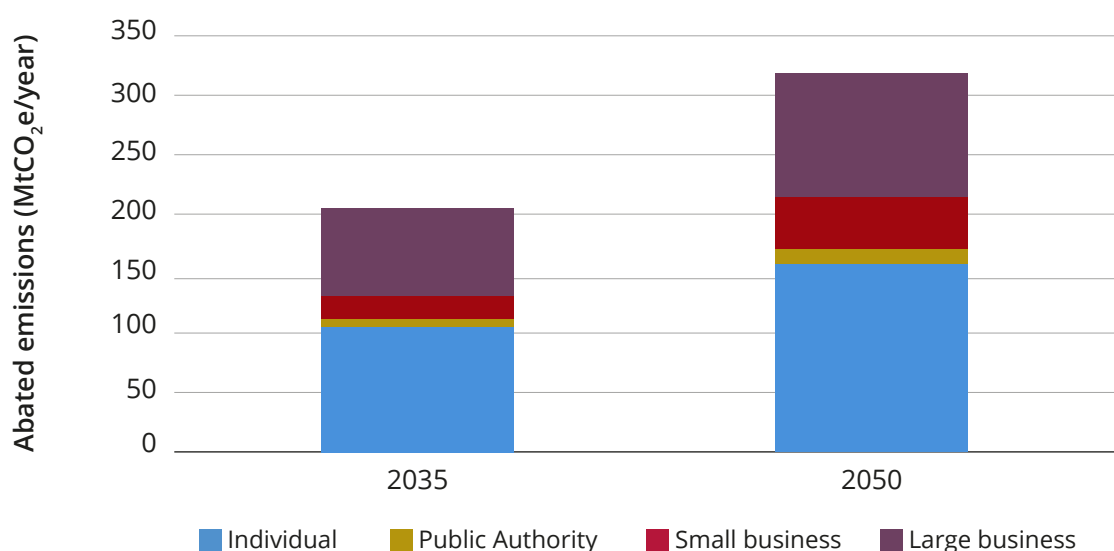
20 Written evidence from the Institute for Public Policy Research (IPPR) ([CCE0089](#)) and Green Alliance ([CCE0051](#)), [Q 21](#) (Sally Copley), [Q 21](#) (Ugo Vallauri) and [Q 110](#) (Tim Lord) and written evidence from the IPPR ([CCE0089](#)) and the CAST Consortium ([CCE0048](#))

21 The House of Lords Science and Technology Committee’s 2011 report on Behaviour Change referred to “a range of non-regulatory interventions” or “nudge interventions” which were especially popular for promoting behaviour change at that time. See House of Lords Science and Technology Committee, *Behaviour Change* (2nd Report, Session 2010–12, HL Paper 179).

that changes behaviour. I am not using it to define the intervention but rather the outcome.”<sup>22</sup> Toby Park, Head of Energy, Environment & Sustainability at the Behavioural Insights Team (BIT), agreed and told us: “We are talking about something more akin to building a world in which low-carbon choices and behaviours can flourish.”<sup>23</sup>

18. The CCC have distinguished between the two broad types of behaviour change that are needed to achieve emissions reductions: (1) adopting and using new technologies and (2) changing consumption behaviours including by reducing demand. The CCC’s 2022 Progress Report described two types of behaviour change and their contributions to emissions reductions as follows:
  - **“Choices that involve both the demand and supply sides:** consumers and businesses making lower-carbon choices that involve new low-carbon technology such as driving an electric car or installing a heat pump instead of a gas boiler. These choices comprise 47 per cent of abatement in 2035 in our Balanced Pathway.
  - **Primarily demand-side choices** that go beyond a switch to low-carbon technologies, such as shifting towards healthier and lower-carbon diets, reducing growth in aviation demand, shifting to lower-carbon goods and choosing products that last longer and therefore improve resource efficiency. This category contains 15 per cent of abatement in 2035 in our Balanced Pathway.”<sup>24</sup>
19. The combined contributions of these two types of behaviour change to emissions reductions are presented in Figure 2. The sum of emissions reductions delivered by individual and household-level decisions is 106MtCO<sub>2</sub>e/year or 32 per cent of all abatement up to 2035.

**Figure 2: Abatement by person/organisation making decisions in Sixth Carbon Budget**



Source: Written evidence from the Climate Change Committee (CCE0112)

22 Q 35 (Prof Dame Theresa Marteau)

23 QQ 4, 8 (Toby Park)

24 Committee on Climate Change, *Progress in reducing emissions: 2022 Report to Parliament* (June 2022), p 447: <https://www.theccc.org.uk/wp-content/uploads/2022/06/Progress-in-reducing-emissions-2022-Report-to-Parliament.pdf> [accessed 7 September 2022]

20. Others similarly suggested that adopting low-carbon technologies, shifting to low-carbon services or modes (i.e., taking a train instead of a plane) and reducing consumption are the main types of behaviour change that are needed to reduce emissions and environmental impacts.<sup>25</sup>
21. There is a widespread consensus that the key areas where behaviour change would help the UK to meet climate and environmental goals relate to how we travel, what we eat and buy, and energy use at home.
22. In Table 1 below, the CCC set out the actions that would deliver the largest emissions reductions and which require some consumer engagement.

**Table 1: Abatement from top 20 actions requiring consumer engagement in the Sixth Carbon Budget**

Measure	Abatement 2035, MtCO <sub>2</sub> e
ULEV [ultra-low emissions vehicles] - cars	56.8
Demand reduction international flights	11.3
Electrification in manufacturing and construction	9.4
ULEV - vans small business	8.4
ULEV - vans large business	8.1
ULEV HGVs	7.8
Diet change and food waste reduction	7.4
Heat pumps in owner occupied houses	7.3
CCUS [carbon capture, use and storage] in manufacturing and construction	5.7
Biodegradable waste landfill ban, reductions in food waste, increased recycling	5.6
Resource efficiency and material substitution in manufacturing and construction	5.5
Fuel supply sector fuel switching	5.1
Reduce waste arisings	4.7
Heat pumps in new residential buildings	4.4
Energy efficiency in non-residential buildings	3.8
Reduce methane leakage in fuel supply	3.6
Hybrid heat pumps	3.4
Electric compressors in fuel supply	3.4
Energy efficiency in manufacturing and construction	3.3
Reduced consumption of new resources in manufacturing and construction	2.8

Source: Written evidence from the Climate Change Committee ([CCE0112](#))

\* Note: These are the top 20 actions within the CCC's two behaviour change categories set out in paragraph 18.

25 Written evidence from Dr Viktoria Spaiser, and Prof Cristina Leston-Bandeiras ([CCE0016](#)), Climate Outreach ([CCE0111](#)) and Dr Caroline Moraes ([CCE0019](#))

23. The table shows some of the highest emissions reductions in these categories can be delivered through adopting ultra-low emission cars, installing heat pumps, reducing international flights, dietary change and reducing food waste.
24. Paula Lehtomäki, Secretary General of the Nordic Council, and others told us behaviour changes related to personal travel, food and household energy use could have the largest impact.<sup>26</sup> Witnesses also said what we buy and the reduction, reuse and recycling of products should be considered a priority,<sup>27</sup> and some singled out fashion in particular.<sup>28</sup> Dr Rachel Harcourt and Professor Suraje Dessai from the University of Leeds explained that behaviour change would also be needed to adapt to climate change, for example households installing flood prevention measures for their private properties.<sup>29</sup>
25. The scale and urgency of the changes required was another point highlighted by witnesses. Professor Tim Lang, Emeritus Professor of Food Policy at City University, told us: “It is population change or bust. Trying to appeal to individuals to do that, or to do a little tweak here or there, will not address the enormity, the scale of change that has to be done if we are to take public health seriously and environmental health seriously.”<sup>30</sup> While Sir Patrick Vallance said: “The reality is if most things are not done in the next five or six years, it is very difficult to start making the 2050 target.”<sup>31</sup>
26. When asked about particular areas where behaviour change may be needed to meet net zero, the Rt Hon Greg Hands MP, then Minister for Energy, Clean Growth and Climate Change, told us: “I would highlight travel, our homes, how we save our money, how we heat our homes, et cetera.”<sup>32</sup>
27. **There is a widespread consensus that—if the UK is to meet its climate and environmental goals—we will need to change how we travel, what we eat and buy, and how we use energy at home, including through adopting new technologies and reducing carbon-intensive consumption. Making these changes will bring multiple health, social and economic benefits.**
28. **The UK has made welcome progress in reducing emissions through technological innovations and their uptake by industry with little visible impact on the public. This must continue but the Government must also devote much more attention to making it easier for individuals, households and communities to adopt new technologies, change consumption patterns—including by reducing demand—and shift travel modes, if we are to achieve net zero and the UK’s long-term environmental goals.**

---

26 [Q 49](#) (Paula Lehtomäki), [Q 75](#) (Prof Ken Peattie) and written evidence from the CAST Consortium ([CCE0048](#)), Dr Viktoria Spaizer and Prof Cristina Leston-Bandeiras ([CCE0016](#)), Oxfordshire County Council ([CCE0103](#)) and the Centre for Research into Energy Demand Solutions ([CCE0069](#))

27 Written evidence from the UCL Centre for Behaviour Change ([CCE0033](#)), Humanist Climate Action ([CCE0071](#)) and n0co2.org ([CCE0020](#))

28 Written evidence from Hubbub ([CCE0060](#)) and [Q 75](#) (Prof Ken Peattie)

29 Written evidence from Dr Rachel Harcourt and Prof Suraje Dessai ([CCE0044](#))

30 [Q 98](#) (Prof Tim Lang) and Dr Shanon Shah made a similar point ([Q 14](#)).

31 [Q 109](#) (Sir Patrick Vallance)

32 [Q 148](#) (Greg Hands MP)

29. ***The Government should focus as a priority on enabling the most impactful behaviour changes that will be needed to meet climate and environmental goals including: adopting ultra-low emission vehicles; installing home insulation and low-carbon heating technologies; taking fewer long-haul flights; changing of diets; and generally reducing carbon and resource-intensive consumption and waste.***

### **Who needs to change behaviour?**

30. This report focuses on behaviour changes by individuals, households and communities. We explore the roles of civil society, local authorities, businesses, devolved governments and the UK Government in enabling these changes in Chapters 6 and 9.
31. We heard that not all households will need to—or be able to—adopt behaviour changes to the same extent, and that policies should take into account the needs of different groups and fairness.
32. Mr Lord told us: “In the UK, the wealthiest 10 per cent have a carbon footprint more than double the national average and more than four times that of people at the lower end of the income distribution.”<sup>33</sup> Other witnesses noted this unequal distribution of emissions across UK households as well as globally, and suggested high-income households have a greater responsibility to reduce their emissions.<sup>34</sup>
33. We heard that policies could have the greatest impact by targeting households with higher emissions. Greater Manchester Combined Authority Health and Social Care Partnership told us, “It is with these higher income groups that behaviour change approaches may offer the most immediate promise,” but also stressed: “Policies need to be inclusive of lower income groups to prevent a widening of inequalities.”<sup>35</sup>
34. Witnesses said behaviour change policies should account for low-income households both having been and continuing to be contributors of fewer emissions and pollution and being less able to manage any increases in costs.<sup>36</sup> Further, Dr Caroline Moraes, Reader in Marketing and Consumer Research at the University of Birmingham, said, due to increasing rates of poverty, solutions should be sought which do not raise costs for end consumers.<sup>37</sup>
35. It is harder for some groups to make changes and they may be affected differently by behaviour change policies. Professor Wouter Poortinga, Professor of Environmental Psychology at Cardiff University, and Dr Emily Gray, Managing Director at Ipsos MORI Scotland, both noted that limited travel options in rural areas make changes for those living there more challenging.<sup>38</sup> Stephen Edwards, Chief Executive Officer of Living Streets, highlighted that “disabled and visually impaired people experience our

---

33 [Q 119](#) (Tim Lord)

34 Written evidence from Dr Viktoria Spaiser and Prof Cristina Leston-Bandeiras ([CCE0016](#)), One Home ([CCE0045](#)) and Picture Zero Productions ([CCE0055](#)) and [Q 105](#) (James Hand).

35 Written evidence from the Greater Manchester Combined Authority Health and Social Care Partnership ([CCE0109](#))

36 Written evidence from Asthma UK and the British Lung Foundation ([CCE0012](#))

37 Written evidence from Dr Caroline Moraes ([CCE0019](#))

38 [Q 68](#) (Prof Wouter Poortinga) and [Q 71](#) (Dr Emily Gray)

streets very differently from the way we do, and we need to ensure that we do not exclude people when we are introducing changes”.<sup>39</sup>

36. Several witnesses highlighted that to take into account the needs of different groups in designing behaviour change policies requires fairness and actively engaging people.<sup>40</sup> Fairness and a ‘just transition’ were seen as essential for public acceptance of policies.<sup>41</sup> Further, the Climate Assembly UK—which was commissioned by six House of Commons select committees and involved a representative group of UK citizens exploring how to reach net zero—emphasised in their final report the importance of fairness as an underpinning principle for the path to net zero.<sup>42</sup>
37. When asked about ensuring behaviour change is fair for lower-income households, Mr Hands told us:
 

“You absolutely have to carry people with you in this, which means keeping it affordable and thinking all the time about how people are being pressed, particularly this year ... The last thing they would want to see is the Government coming along and adding massively to that cost-of-living pressure.”<sup>43</sup>
38. As the Committee concluded this inquiry, the cost-of-living crisis was deepening with energy and food prices rising to put a growing strain on many household budgets. While much of our evidence-gathering occurred before prices had reached current levels, witnesses noted affordability as a barrier to some kinds of behaviour change and emphasised how financial support mechanisms could help in some cases.<sup>44</sup> We note this in the relevant chapters and our conclusions and recommendations are informed by the challenges many households face at the time of writing.
39. **Witnesses were clear that the UK’s path to net zero should be a fair one. Everyone will need to make some changes, but higher income households which typically have a larger carbon footprint must take correspondingly larger steps to reduce their emissions.**
40. **The barriers to changing behaviour to reduce emissions and environmental impacts and to adapt to climate change vary across the population. Policies will have to address the needs of different households including people on low incomes, people living in rural areas and people with disabilities. We welcome the Minister’s recognition of the importance of affordability in the transition to net zero. The growing cost-of-living crisis strengthens the need for behaviour change policies that support lower-income households.**

---

39 [Q 94](#) (Stephen Edwards)

40 Written evidence from Duggan ([CCE0023](#)), Trafford Council ([CCE0096](#)) and the UCL Centre for Behaviour Change ([CCE0033](#))

41 [Q 49](#) (Secretary-General Paula Lehtomäki) and written evidence from Green Alliance ([CCE0051](#)) and the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#))

42 Climate Assembly UK, *The Path to Net Zero: Climate Assembly UK Full Report* (September 2020), p 12: <https://www.climateassembly.uk/report/read/final-report.pdf> [accessed 7 June 2022]

43 [Q 149](#) (Greg Hands MP)

44 Written evidence from More in Common ([CCE0050](#)), Midlands Connect ([CCE0075](#)), Which? ([CCE0039](#)), the Institute of Grocery Distribution ([CCE0099](#)), the IPPR ([CCE0089](#)), South Cambridgeshire District Council ([CCE0105](#)) and Energy Saving Trust ([CCE0047](#)) and [Q 110](#) (Sir Patrick Vallance), [Q 38](#) (Prof Theresa Marteau) and [Q 119](#) (Tim Lord), written evidence from the Centre for Research into Energy Demand Solutions ([CCE0069](#)), the CAST Consortium ([CCE0048](#)) and [Q 23](#) (Barbara Pompili)

41. ***Fairness should be a central aspect of government policies on behaviour change to meet net zero and long-term environmental goals, including by helping low-income households with costs where appropriate.***

### CHAPTER 3: CURRENT POSITION OF THE PUBLIC

---

*“We know that the public are keen to play their part. The BEIS Public Attitudes Tracker shows that 85 per cent of the public are concerned or, indeed, very concerned about climate change. That number has doubled since 2016.”*

*The Rt Hon Greg Hands MP, then Minister for Energy, Clean Growth and Climate Change, UK Government*

42. A wealth of research has explored the UK public’s levels of concern and understanding about climate change and the environment, as well as people’s appetite for changing behaviour and related policies.

#### Concern

43. Many studies and polls suggest the UK public’s concern about climate change and the environment has been increasing in recent years and is high.<sup>45</sup> The Centre for Climate Change and Social Transformations (CAST) Consortium told us: “Concern about climate change has steadily risen over the past decade, and stands at an all-time high, with 45 per cent of the British population saying they are very or extremely worried about it. This is an increase from 39 per cent in 2020 and 25 per cent in 2016.”<sup>46</sup> Dr Gray explained: “Overall concern about the environment and climate change has been on the rise among the public for the last four years or so and it rose particularly in 2019 and early 2020, before the pandemic hit.”<sup>47</sup> She added that while concern had fallen somewhat in the months after COP26 and as other pandemic-related developments rose up the public agenda, “evidence will point to greater public concern about this issue being here to stay.”<sup>48</sup>
44. Dr Harcourt and Prof Dessai also noted high levels of concern about the local impacts of climate change and suggested this provides “a window of opportunity” for the Government “to raise awareness of adaptation options and to secure public support for government-led adaptation measures and investment”.<sup>49</sup>
45. In his evidence to the Committee, Mr Hands noted the level of concern among the public regarding climate change: “We know that the public are keen to play their part. The BEIS Public Attitudes Tracker shows that 85 per cent of the public are concerned or, indeed, very concerned about climate change. That number has doubled since 2016.”<sup>50</sup>
46. Differences across the UK public in the degree of concern reported are smaller than they were, but most witnesses said they still exist. Dr Gray said that concern about climate change is now much more mainstream, but added socio-economic status still makes “a big difference” to people’s level of concern.<sup>51</sup> Others noted high levels of concern in general but pointed to

---

45 Written evidence from the Office for National Statistics (ONS) ([CCE0074](#)), Natural England ([CCE0034](#)), Green Alliance ([CCE0051](#)), British Psychological Society ([CCE0090](#)) and Picture Zero Productions ([CCE0055](#))

46 Written evidence from the CAST Consortium ([CCE0048](#))

47 [Q 59](#) (Dr Emily Gray)

48 [Q 59](#) (Dr Emily Gray)

49 Written evidence from Dr Rachel Harcourt and Prof Suraje Dessai ([CCE0044](#))

50 [Q 148](#) (Greg Hands MP)

51 [Q 62](#) (Dr Emily Gray)

differences in the strength of feeling by age, gender, socio-economic status, and political party affiliation.<sup>52</sup>

47. Some witnesses highlighted emerging evidence of wider emotional responses to climate change and the environment. Dr Elizabeth Marks, Senior Lecturer at the University of Bath, and colleagues referred to recent surveys focused on children, young adults and other age groups where respondents reported feeling a range of challenging emotions regarding climate change, such as fear, anxiety and anger.<sup>53</sup> The Office for National Statistics (ONS) shared results from their October 2021 *Opinions and Lifestyle Survey* showing more than 40 per cent of UK adults reported feeling somewhat or very anxious about the future of the environment.<sup>54</sup>

### Understanding

48. We heard from Which?, the consumer organisation, that people “don’t always understand what they can most effectively do to reduce their own impact”.<sup>55</sup> Other witnesses agreed.<sup>56</sup> Dr Gray told us:

“The evidence suggests that we tend to overestimate how much of a difference to carbon emissions lower-impact actions such as recycling and so on will make. We underestimate the impact of higher-impact actions that will make more of a difference to reducing carbon emissions in the UK, such as taking fewer flights or living car-free.”<sup>57</sup>

Several other witnesses made the same point.<sup>58</sup> Witnesses singled out food as an area where there is especially low awareness of its impacts on climate change and the environment.<sup>59</sup> South Cambridgeshire District Council suggested the UK public’s predominant focus on recycling shows what has been achieved by “relatively clear and consistent messaging for decades on recycling backed up by the provision of physical assets (separate bins)”.<sup>60</sup> They added that a similar level of awareness could be achieved for wider climate change action, “If similar messaging and practical aid could be provided.”<sup>61</sup>

49. There is limited understanding of the scale of change that may be needed to address and adapt to climate change. Dr Jan Eichhorn, Senior Lecturer in Social Policy at the University of Edinburgh, explained that when asked about the impact of climate change on their lives by 2035 if no action were taken, 18 per cent of people in the UK surveyed thought their lives “would not be affected negatively at all” and 45 per cent of people thought their lives “would just change somewhat requiring some adaptation”.<sup>62</sup> Dr Gray told

---

52 Written evidence from NIHR Public Health Policy Research Unit ([CCE0024](#)), the CAST Consortium ([CCE0048](#)), Prof Alison Anderson ([CCE0058](#)) and Natural England ([CCE0034](#))

53 Written evidence from Dr Elizabeth Marks, Dr Panu Pihkala, Caroline Hickman and Elouise Mayall ([CCE0017](#))

54 Written evidence from the Office for National Statistics (ONS) ([CCE0074](#))

55 Written evidence from Which? ([CCE0039](#))

56 Written evidence from One Home ([CCE0045](#)) and WRAP ([CCE0003](#))

57 [Q 60](#) (Dr Emily Gray)

58 [Q 1](#) (Toby Park), [Q 117](#) (Tim Lord) and written evidence from the CAST Consortium ([CCE0048](#)) and Aldersgate Group ([CCE0113](#))

59 [Q 99](#) (Henry Dimbleby), [Q 60](#) (Dr Emily Gray) and written evidence from Which? ([CCE0039](#)) and Bright Blue ([CCE0043](#))

60 Written evidence from South Cambridgeshire District Council ([CCE0105](#))

61 *Ibid.*

62 Written evidence from Dr Jan Eichhorn ([CCE0022](#))

us: “Awareness of the extent of the transformation that will be needed in society is relatively low.”<sup>63</sup>

### **Appetite for change**

50. Most of the UK public support some form of action by the Government and other actors to address climate change and environmental issues. Dr Gray noted, “Around half of the UK public tell us that they would like the UK to get to net zero sooner than 2050,”<sup>64</sup> while Dr Eichhorn told us: “The majority of people ... wants action to be taken against climate change, but to a varying degree.”<sup>65</sup> As we discuss in Chapter 9, there is a widely-held perception, which is held by several students on the Committee’s youth engagement programme, that the Government should be taking a greater leadership role on climate change than is seen to be the case.
51. However, there is mixed evidence of people’s appetite to make changes themselves. The CAST Consortium told us, “People across the UK express a significant willingness to take on lower carbon lifestyles,”<sup>66</sup> and Dr Marks and colleagues referred to survey results suggesting that seven in ten people “see climate change and other environmental issues are large enough to justify significant changes to people’s lifestyle”.<sup>67</sup> They added: “A similar number indicate they are willing to make such changes to their own lifestyles.”<sup>68</sup> In contrast, Mr Lord argued: “Most people think they do as much as they can at the moment to address climate change ... they think they do enough but the rest of the public do not do enough.”<sup>69</sup>
52. While willingness or desire to make changes varies depending upon the behaviour in question, the evidence is mixed on which changes the UK public are most willing to make. The appetite for policies about behaviour change to meet climate and environmental goals also varies for different policies.
53. Several witnesses including Midlands Connect and the Institute for Grocery Distribution (IGD) referred to recent survey findings indicating a willingness or desire among a majority or significant minority of respondents to undertake certain changes across consumption, travel, energy use and diet.<sup>70</sup> However the CAST Consortium urged caution when interpreting these results, explaining: “It is not yet clear if this willingness will lead to behavioural changes without concerted support from government, business and society.”<sup>71</sup> Furthermore, the Global Sustainability Institute at Anglia Ruskin University suggested: “Extensive evidence from the Social Sciences and Humanities indicates that consumer attitudes are not a good predictor of the potential for change towards greener (i.e. lower carbon) products and services.”<sup>72</sup> There is a body of research exploring the gap between people’s expressed intentions and their environmental behaviours in practice, which we discuss in Chapter 4.

---

63 [Q 61](#) (Dr Emily Gray)

64 [Q 59](#) (Dr Emily Gray)

65 Written evidence from Dr Jan Eichhorn ([CCE0022](#))

66 Written evidence from the CAST Consortium ([CCE0048](#))

67 Written evidence from Dr Elizabeth Marks, Dr Panu Pihkala, Caroline Hickman and Elouise Mayall ([CCE0017](#))

68 *Ibid.*

69 [Q 117](#) (Tim Lord)

70 Written evidence from Hubbub ([CCE0060](#)), the CAST Consortium ([CCE0048](#)), Midlands Connect ([CCE0075](#)) and the Institute of Grocery Distribution ([CCE0099](#))

71 Written evidence from the CAST Consortium ([CCE0048](#))

72 Written evidence from The Global Sustainability Institute at Anglia Ruskin University ([CCE0056](#))

54. Dr Gray explained that with respect to different types of policies, “People are more likely to support policies that incentivise or support them to change their behaviours and help to put the infrastructure in place for them to do that rather than policies that are more restrictive.”<sup>73</sup> This finding is broadly consistent with the recommendations made by Climate Assembly UK.<sup>74</sup> Prof Poortinga made a similar point and noted that policies expected to affect costs for consumers tend to be less popular: “So-called pull measures—measures that make positive behaviours more attractive—are supported and liked much more than punitive measures that make the polluting options more expensive.”<sup>75</sup> However, he suggested that where public support is limited this might be understood in some cases as a “perception problem”, since certain policies would only affect households producing the highest emissions: “When you are talking about a carbon tax, for example, a lot of people do not like the idea, simply because it is labelled as a tax, whereas it would have an impact only on those who are high emitters. There is a perception problem there.”<sup>76</sup>
55. We heard from the CAST Consortium that, when surveyed, the majority of the UK public support a range of specific policies while other policy measures are less popular. The most popular include a levy applied to frequent flyers, subsidies for home insulation and regulations requiring products to be more reusable, repairable and recyclable. Less popular policies include financial measures to increase the price of meat and increased road charges.<sup>77</sup> Regarding adaptation to climate change, Dr Harcourt and Prof Dessai told us surveys in recent years “have found support for spending money now to prepare the country for impacts”, but they also noted that a more granular picture is not available because there has not been a detailed survey of UK public attitudes towards climate adaptation for some years.<sup>78</sup>

### Behavioural trends

56. Some ongoing trends also give an indication of the potential for voluntary behaviour change to meet climate and environmental goals. Professor Ken Peattie, Professor of Marketing and Strategy at Cardiff Business School, noted a change in consumer purchasing behaviour: “Household spending in the UK roughly doubled between 2010 and 2020 on goods and services that people are consuming on the basis of buying sustainable options. Within that, the big categories are things such as food and household products.”<sup>79</sup> Regarding diet, Sir Patrick Vallance told us, “Meat consumption has reduced by about 17 per cent in this country over the last decade,”<sup>80</sup> and in the area of travel, Mr Lord noted that in recent months, “The highest selling model in the UK is an electric vehicle. We now have around 500,000 on the roads and you have an exponential rise in the purchase of electric vehicles.”<sup>81</sup> He added: “The challenge now is to replicate that in other areas.”<sup>82</sup>

---

73 Q 60 (Dr Emily Gray)

74 Climate Assembly UK, *The Path to Net Zero* (10 September 2020): <https://www.climateassembly.uk/report/read/final-report-exec-summary.pdf> [accessed 15 September 2022]

75 Q 71 (Prof Wouter Poortinga)

76 Q 70 (Prof Wouter Poortinga)

77 Written evidence from the CAST Consortium (CCE0048)

78 Written evidence from Dr Rachel Harcourt and Prof Suraje Dessai (CCE0044)

79 Q 75 (Prof Ken Peattie)

80 Q 111 (Sir Patrick Vallance)

81 Q 109 (Tim Lord)

82 *Ibid.*

57. **The UK public are concerned about climate change and the environment and there is a widespread desire for action to be taken. There are several positive trends such as shifts in diets, purchasing behaviours and the growing uptake of electric vehicles. However, most of us do not know what the most effective actions are that we can take to reduce our emissions and environmental impacts, nor do we appreciate the scale of change that will be needed to reach net zero or adapt to climate change. The appetite of people across the UK for these actions and for the policies needed to enable them is mixed. The public want clear leadership from government and a coordinated approach from government to help them adapt.**
58. *The Government must be more open about the changes to behaviour that will be needed to meet the UK's climate and environmental goals. We call on the Government to develop a public engagement strategy by April 2023 to: (1) communicate and fill the gaps in understanding about the types of changes needed to reach net zero, reduce our environmental footprint and adapt to climate change, and (2) initiate a dialogue with the public about which policies can best enable change and how. Tapping the potential in public concern about climate change and the environment could help accelerate the transition to a greener UK. Conversely a lack of communication and engagement from government risks a delayed and disorderly transition. We offer further recommendations on public engagement in Chapter 8.*

### Tracking public attitudes and behavioural trends

59. Recent waves of the Department for Business, Energy and Industrial Strategy (BEIS) Public Attitudes Tracker, which was referred to by Mr Hands in his evidence to the Committee,<sup>83</sup> include questions on awareness of the shift to low-carbon heating systems, whether people might install rooftop solar panels and what actions people take to save energy in the context of energy bills.<sup>84</sup> The tracker does not consistently include questions covering whether people would like to, or are, taking actions across each of the key behaviour change areas we identify in Chapter 2, nor the reasons behind people's willingness to change.
60. The ONS told us that ahead of the COP26 climate conference they gathered new data on public attitudes to climate change and behaviours including "actions taken or not taken".<sup>85</sup> They also launched as a prototype the *UK Climate Change Statistics Portal*, which brings climate change-related statistics from across government "together in one place for the first time". They added: "We are continuing to develop the portal."<sup>86</sup> In his evidence to the Committee, Sir Patrick Vallance referred to an ONS dashboard and explained that while he was not sure of the exact content, he was focused on ensuring it is "as complete as can be" and noted the usefulness of capturing trends like changes in meat consumption.<sup>87</sup> At present the ONS *UK Climate*

---

83 [QQ 148, 157](#) (Greg Hands MP)

84 Department for Business, Energy and Industrial Strategy, *BEIS Public Attitudes Tracker* (Spring 2022): [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1082723/BEIS\\_PAT\\_Spring\\_2022\\_Questionnaire.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1082723/BEIS_PAT_Spring_2022_Questionnaire.pdf) [accessed 15 September 2022]

85 Written evidence from Office for National Statistics (ONS) ([CCE0074](#))

86 *Ibid.*

87 [Q 116](#) (Sir Patrick Vallance)

*Change Statistics Portal* also does not include statistics relating to all of the key behaviour change areas identified in Chapter 2.<sup>88</sup>

61. Emily Cattell, Deputy Director, Office of the Director of Analysis for the Department for Environment, Food and Rural Affairs (Defra), told us the Government’s public opinion trackers—including Defra’s survey on attitudes to the environment, the People and Nature Survey, and the BEIS Public Attitudes Tracker— “provide those really important trends across a whole range of policy areas. That allows us then to dive into specific areas we might want to pick up in the department”.<sup>89</sup>
62. **Public attitudes towards climate change and the environment have evolved significantly in recent years. There is a rich body of evidence on some aspects of public attitudes and willingness to adopt behaviour change to meet climate and environmental goals, but gaps in the data exist. We welcome the Office for National Statistics’ prototype *UK Climate Change Statistics Portal*, however neither this portal nor the BEIS Public Attitudes Tracker consistently include statistics relating to the key behaviour changes needed to achieve the UK’s climate and environment goals.**
63. *The BEIS Public Attitudes Tracker or the Office for National Statistics UK Climate Change Statistics Portal should regularly monitor whether people would like to or are making changes in how they travel, use energy at home and what they eat and buy, and the reasons behind people’s willingness to change.*

---

88 HM Government, ‘Climate change statistics’: <https://climate-change.data.gov.uk/> [accessed 15 September 2022]

89 [Q 135](#) (Emily Cattell)

## CHAPTER 4: THEORIES, DRIVERS AND LEVERS OF CHANGE

*“For a new behaviour to arise, people generally need to have sufficient capability to enact the behaviour, which includes: the physical capability to do it, the means, the time and so on; the opportunity to do it—in other words, whether that choice is readily available to them, socially normative and so on; and the motivation to do it. Do they want to do it?”*

*Toby Park, Head of Energy, Environment & Sustainability, the Behavioural Insights Team*

64. There is a rich body of research upon which policies for behaviour change to meet climate and environmental goals can draw to inform the drivers of behaviour they target and the policy levers to be used.
65. The National Institute for Health Research (NIHR) Public Health Policy Research Unit argued that interventions informed by theory and applied research have higher chances of success:

*“It is important that [behaviour change interventions] are robustly developed, based on appropriate theoretical frameworks, and informed by research. Such research can identify barriers and facilitators to change and can test and refine different intervention approaches before implementation, ensuring that interventions have a better chance of producing desired changes.”<sup>90</sup>*

### Theories, models and drivers of behaviour

66. Theories and models of behaviour include psychological models, which focus on drivers of individual decision-making, and others which take broader social, structural or systems perspectives.
67. Psychological models include COM-B (capability, opportunity, motivation: behaviour), which was developed as a synthesis of other models by Susan Michie and colleagues from University College London (UCL) and was referred to by several witnesses.<sup>91</sup> Mr Park explained the core tenets of the model:

*“For a new behaviour to arise, people generally need to have sufficient capability to enact the behaviour, which includes: the physical capability to do it, the means, the time and so on; the opportunity to do it—in other words, whether that choice is readily available to them, socially normative and so on; and the motivation to do it. Do they want to do it?”<sup>92</sup>*

The British Psychological Society (BPS) suggested analysis of these factors can be used to “inform the most appropriate intervention”.<sup>93</sup>

68. Another psychological model is the Theory of Planned Behaviour, which suggests behavioural intentions are influenced by attitudes, social norms and perceived and actual control over actions. Like ‘capability’ in COM-B, control “emphasises that we can only adopt (new) behaviours that are actually possible/available in a given context”.<sup>94</sup> However, a limitation of the

90 Written evidence from the NIHR Public Health Policy Research Unit ([CCE0024](#))

91 Written evidence from Midlands Connect ([CCE0075](#)), Hampshire County Council ([CCE0009](#)), Oxfordshire County Council ([CCE0103](#)) and Aldersgate Group ([CCE0113](#))

92 [Q 4](#) (Toby Park)

93 Written evidence from the British Psychological Society ([CCE0090](#))

94 Written evidence from Dr Viktoria Spaier and Prof Cristina Leston-Bandeira ([CCE0016](#))

Theory of Planned Behaviour is its focus on intentional rather than habitual behaviour.<sup>95</sup> Indeed, we heard that many behaviours relevant to this inquiry are routine and habitual, so are less able to be predicted by intentions than by the wider environment.<sup>96</sup>

69. Both COM-B and the Theory of Planned Behaviour shed light on a recognised gap between people's intentions and their environmental behaviours in practice—which is often known as the “value-action gap” or “attitude-behaviour gap”—because wider social or physical factors prevent people acting on their values or attitudes.<sup>97</sup> Prof Dame Marteau told us: “People want to do the right thing, but life gets in the way.”<sup>98</sup>
70. However, some witnesses argued that a greater focus is needed on how structural factors and the wider environment evolve to inform behaviour than psychological models permit.<sup>99</sup> Prof Lang said cultural factors that shape aspirations and demand are key,<sup>100</sup> while the Global Sustainability Institute at Anglia Ruskin University, proposed the use of “whole-system approaches that recognise that people's actions are rooted in habits, social norms, and the opportunities and limitations that are created by physical environments, financial incentives and regulations”.<sup>101</sup>
71. In this vein, witnesses referred to sociological models like Social Practice Theory (SPT), or ‘practice approaches’ as they are sometimes referred to, which see conventions and routines as properties of the interplay of social and physical factors including: the meanings associated with a behaviour; competences and skills; and the materials which make a practice possible.<sup>102</sup> Dr Moraes gave an example:

“Driving might involve *meanings* such as freedom and mobility, being able to perform daily duties such as taking children to school and being able to get to work on time; it requires *competences* such as passing a written and practical driving test, being able to drive on busy roads; and it requires *materials* like a car or having access to car rental or car sharing.”<sup>103</sup>

These sociological models explore the purposes of consumption and how they can be achieved in different ways.<sup>104</sup>

72. Somewhat similar to SPT, Governor Yuriko Koike, Governor of Tokyo, told us about a Japanese martial arts-inspired behaviour change model that focusses on mind (mindset), skill (technologies) and body (institutions and regulations).<sup>105</sup> Governor Yuriko Koike said these three elements should be implemented “at the same time and comprehensively”.<sup>106</sup>

---

95 Written evidence from the Global Sustainability Institute, Anglia Ruskin University (CCE0056)

96 Q 127 (Dr Kris De Meyer) and Q 59 (Prof Wouter Poortinga)

97 Written evidence from Prof Miles Richardson (CCE0001), Dr Caroline Moraes (CCE0019), Prof Alison Anderson (CCE0058) and Q 59 (Prof Wouter Poortinga)

98 Q 35 (Prof Dame Theresa Marteau)

99 Written evidence from the Global Sustainability Institute, Anglia Ruskin University (CCE0056) and the Centre for Research into Energy Demand Solutions (CCE0069)

100 Q 98 (Prof Tim Lang)

101 Written evidence from the Global Sustainability Institute, Anglia Ruskin University (CCE0056)

102 Written evidence from Dr Caroline Moraes (CCE0019)

103 *Ibid.*

104 Written evidence from the Global Sustainability Institute, Anglia Ruskin University (CCE0056)

105 Q 44 (Governor Yuriko Koike)

106 *Ibid.*

73. Further, we heard from several witnesses that individual factors, such as knowledge, tend to be less influential than wider social or physical factors.<sup>107</sup> Mr Park explained this with reference to BIT’s upstream-downstream model:
- “Changing the choice environment to change behaviour—such as making the green choices cheaper and more available—is often more effective than trying to change what is inside people’s heads and hearts and persuading them to make different choices that are currently difficult, expensive, unfamiliar, and so on. We refer to this as acting upstream.”<sup>108</sup>
74. This ‘upstream’ approach in BIT’s model contrasts with ‘midstream’ and ‘downstream’ interventions. Upstream approaches work by “incentivising businesses to provide low-carbon options, which Government could achieve through fiscal opportunities; procurement strategies; aligning market competition with Net Zero; and leading by example”.<sup>109</sup> Midstream approaches “create an enabling environment so that behaviour change becomes the default where possible” including by making net zero choices more accessible, affordable and easier.<sup>110</sup> Downstream approaches involve encouraging individuals and include building positive narratives and public support for change.<sup>111</sup>
75. Witnesses referred to several other models and how they can inform interventions, including the BIT’s ‘EAST’ model, which states behaviour change should be made easy, attractive, social and timely,<sup>112</sup> ‘nudge’ approaches, which encompass a range of methods for altering the attractiveness and prominence of behavioural options without constraining choice,<sup>113</sup> and the five ‘E’s framework—encouragement, education, enforcement, environment, evaluation—applied by some local authorities.<sup>114</sup>
76. While several government departments discussed using the COM-B model and referred to other models (e.g., SPT and EAST) in their submissions to the Committee, the policies to enable behaviour change to meet climate and environmental goals which departments described suggest that theories of behaviour are not consistently used.<sup>115</sup>
77. Beyond the theories and models discussed above, we heard that various factors drive changes to behaviours in the scope of this inquiry.<sup>116</sup> Witnesses singled out individual knowledge, values and emotions—such as hope, pride and

---

107 [Q 35](#) (Prof Dame Theresa Marteau), [Q 127](#) (Kris De Meyer) and written evidence from the Centre for Research into Energy Demand Solutions ([CCE0069](#)), the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)), and the CAST Consortium ([CCE0048](#))

108 [Q 1](#) (Toby Park)

109 Written evidence from Midlands Connect ([CCE0075](#)). The BIT’s upstream-downstream model was also set out in the October 2021 paper ‘Net Zero: principles for successful behaviour change initiatives’, which was commissioned by BEIS but only published by the Government temporarily before being withdrawn. The model has also been outlined in other BIT publications.

110 Written evidence from Midlands Connect ([CCE0075](#))

111 *Ibid.*

112 Written evidence from The National Lottery Community Fund ([CCE0031](#))

113 Written evidence from Understanding Society, the UK Household Longitudinal Study ([CCE0013](#))

114 Written evidence from Trafford Council ([CCE0096](#)) and the Greater Manchester Directors of Public Health ([CCE0097](#))

115 Written evidence from the Department for Education ([CCE0066](#)), Defra ([CCE0068](#)), the Department for Transport ([CCE0062](#)), the Foreign, Commonwealth and Development Office ([CCE0064](#)) and the Department for Health and Social Care ([CCE0061](#))

116 [Q 49](#) (Secretary-General Paula Lehtomäki)

guilt<sup>117</sup>—and social factors—such as norms, group identity and community solidarity<sup>118</sup>—though practical factors were the most commonly mentioned including price, ease and functionality.<sup>119</sup> The influence of different factors varies across individuals and groups and, as we noted in Chapter 2, not all households will need to, or be able to, adopt behaviour changes to the same extent due to variation in consumption patterns and the barriers faced.<sup>120</sup>

78. **Our understanding of behaviour change continues to evolve. Across the range of behaviour change theories there are some consistent findings including that human behaviour is motivated by multiple factors, such as knowledge, values, social norms, price, ease and functionality. Several of these factors are structural and contribute to the wider environment within which behaviour takes place.**
79. **While some departments refer to behaviour change theories and models, we are not convinced that these are being used routinely and consistently by policymakers when approaching the societal aspects of achieving climate and environmental goals.**

### Levers of change

80. There are a range of policy levers available to the Government and other organisations and groups to enable behaviour change, which include:
  - informational tools and social approaches which aim to increase understanding and change attitudes or social norms;
  - public engagement to inform policy development and build consensus;
  - regulatory and financial (dis)incentives which alter the availability and affordability of options; and
  - development or adaptation of physical infrastructure and the choice environment to change the context within which behaviour takes place.
81. Sir Patrick Vallance told us information is important as “individuals need to know what is expected of them and what they can do”.<sup>121</sup> Several witnesses said gaps in knowledge are hindering behaviour change to meet climate and

---

117 Written evidence from Dr Caroline Moraes ([CCE0019](#)), Prof Miles Richardson ([CCE0001](#)) and Dr Elizabeth Marks, Dr Panu Pihkala, Caroline Hickman and Elouise Mayall ([CCE0017](#))

118 Written evidence from Dr Rachel Harcourt and Prof Suraje Dessai ([CCE0044](#)), the Advertising Association ([CCE0037](#)) and Dr Caroline Moraes ([CCE0019](#))

119 [Q 109](#) (Sir Patrick Vallance), [Q 5](#) (David Joffe), written evidence from the Greater Manchester Combined Authority Health and Social Care Partnership ([CCE0109](#)), [Q 81](#) (Hugo Spowers), [QQ 2, 7](#) (Toby Park), [Q 2](#) (Ewa Kmietowicz), written evidence from Hampshire County Council ([CCE0009](#)), Which? ([CCE0039](#)), Dr Adam Whybray ([CCE0002](#)), the Institute of Grocery Distribution ([CCE0099](#)), [Q 94](#) (Prof Jillian Anable), [Q 85](#) (Chris Boardman), the Centre for Research into Energy Demand Solutions ([CCE0069](#)), Dr Sean Field, Dr Mette High, Dr Emilka Skrzypek, Centre for Energy Ethics ([CCE0053](#)), Sustrans ([CCE0070](#)), [Q 115](#) (Tim Lord), [Q 127](#) (Kris De Meyer), [Q 3](#) (Toby Park) and [Q 98](#) (James Hand)

120 Written evidence from the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)) and [Q 98](#) (James Hand), written evidence from Dr Claire Hoolohan and Dr Alison Browne ([CCE0029](#)), Understanding Society, the UK Household Longitudinal Study ([CCE0013](#)) and Dr Sara Collins and Sarah Lawfull ([CCE0036](#))

121 [Q 111](#) (Sir Patrick Vallance)

environmental goals.<sup>122</sup> However many witnesses suggested information by itself is insufficient to change behaviour and yet it is too often relied on by the Government and other groups and organisations.<sup>123</sup> The impact of awareness-raising approaches alone are often limited because “our actions do not automatically follow facts” and the environment may prevent behaviour change,<sup>124</sup> as we discussed earlier in this chapter.

82. Dr Spaiser and Prof Leston-Bandeira argued that “without a change in norms, it is unrealistic to expect behavioural and institutional change”.<sup>125</sup> Social approaches can help normalise low-carbon choices and change consumption norms. These include community activities through which people take action locally and the roles social influencers and early adopters can play to inspire people to change their behaviour.<sup>126</sup>
83. Public engagement was felt by many witnesses to be vital.<sup>127</sup> Green Alliance argued: “To be successful, lifestyle changes must chime with people’s values ... Carefully testing future propositions by engaging with people early, and addressing their concerns and motivations, will expand the range of policies the government can use.”<sup>128</sup> Engagement can build trust and willingness to participate in change.<sup>129</sup> Natural England argued that bringing in “voices of young people” is “especially important”.<sup>130</sup> We explore the role of public engagement in more detail in Chapter 8.
84. Witnesses said regulation and financial (dis)incentives can be used to make green choices easier and cheaper and to decrease the availability and affordability of carbon and resource-intensive products.<sup>131</sup> Regulation was argued by many to be a highly effective tool for behaviour change by consumers and industry and is often seen by the public as fairer and more acceptable than economic interventions.<sup>132</sup> Financial measures can be used to ensure the price of products and services better reflect their environmental costs.<sup>133</sup> However, while affordability is very important, witnesses said cost is not always the biggest factor driving consumer decision-making.<sup>134</sup>

---

122 [Q 78](#) (Angela Terry), [Q 115](#) (Tim Lord), written evidence from Dr Rachel Harcourt, Prof Suraje Dessai ([CCE0044](#)), [Q 60](#) (Dr Emily Gray), [Q 2](#) (Ewa Kmietowicz), written evidence from Lorna Benton, Naomi Fallon, Paula Feehan and Alicia Walker ([CCE0046](#)), Manchester City Council and Manchester Climate Change Agency ([CCE0102](#)) and [Q 2](#) (Toby Park)

123 [Q 98](#) (Prof Tim Lang) [Q 35](#) (Prof Dame Theresa Marteau) and written evidence from the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#))

124 Written evidence from Mr Per Grankvist, Chief Storyteller at Viable Cities ([CCE0079](#)) and WinACC Winchester Action on the Climate Crisis ([CCE0006](#))

125 Written evidence from Dr Viktoria Spaiser and Prof Cristina Leston-Bandeira ([CCE0016](#))

126 Written evidence from Carbon Copy ([CCE0008](#)), Dr Viktoria Spaiser and Prof Cristina Leston-Bandeira ([CCE0016](#)) and the Institute of Grocery Distribution ([CCE0099](#)) and [Q 84](#) (Angela Terry)

127 Written evidence from Trafford Council ([CCE0096](#)) and the UCL Centre for Behaviour Change ([CCE0033](#))

128 Written evidence from Green Alliance ([CCE0051](#))

129 Written evidence from More in Common ([CCE0050](#))

130 Written evidence from Natural England ([CCE0034](#))

131 Written evidence from the UCL Plastic Waste Innovation Hub ([CCE0032](#)), UK100 ([CCE0108](#)), n0co2.org ([CCE0020](#)), Henham Strategy (Getir) ([CCE0072](#)) and [Q 35](#) (Prof Dame Theresa Marteau)

132 [Q 120](#) (Sir Patrick Vallance), [Q 105](#) (Prof Tim Lang) and written evidence from Aldersgate Group ([CCE0113](#)), Dr Viktoria Spaiser and Prof Cristina Leston-Bandeira ([CCE0016](#)), the Centre for Research into Energy Demand Solutions ([CCE0069](#)), the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)), the Competition and Markets Authority (CMA) ([CCE0101](#)), Tesco PLC ([CCE0106](#)), the British Retail Consortium ([CCE0042](#)), Natural England ([CCE0034](#)), WRAP ([CCE0003](#)) and Bright Blue ([CCE0043](#))

133 [Q 80](#) (Prof Ken Peattie), [Q 49](#) (Secretary-General Paula Lehtomäki) and written evidence from Understanding Society, the UK Household Longitudinal Study ([CCE0113](#)) and WSP ([CCE0087](#))

134 Written evidence from Climate Outreach ([CCE0111](#))

85. We also heard that modifying the physical and choice environment can play a key role in enabling behaviour change, particularly infrastructure in the case of transport,<sup>135</sup> and making sustainable options more prominent (or the default choice), attractive and easier to access through ‘nudging’.<sup>136</sup> However, others noted that nudges alone would be inadequate to achieve the scale of change required.<sup>137</sup>
86. Many witnesses argued that multiple levers will be needed to achieve environmental and climate goals.<sup>138</sup> The House of Lords Science and Technology Committee’s inquiry on *Behaviour Change* in 2011 reached a similar conclusion that a range of policy tools, including regulatory and non-regulatory measures, are needed to enable behaviour change more widely.<sup>139</sup> The sequencing of these different measures may influence their effectiveness and public acceptability. Green Alliance suggested: “It may be the case that investment is needed to create zero-carbon alternatives before taxes are introduced to enable them to be effective. At the same time, taxes can prompt the development of alternatives.”<sup>140</sup>
87. We also heard that different levers are appropriate for different contexts and that evidence on the barriers faced by individuals and groups should inform the choice of intervention.<sup>141</sup> More widely, witnesses advocated more comprehensive piloting and testing, monitoring, assessment and evaluation of behaviour change interventions to ensure learning from theory and from past initiatives.<sup>142</sup>
88. We consider the case for the use of these levers in several key areas requiring behaviour change in more detail in Chapter 7 and touch on how they can be used effectively in other chapters, especially Chapters 8 and 9.
89. **Awareness-raising measures, while important, are insufficient to enable behaviour change. Policies and initiatives will need to use multiple levers that focus on the environment within which behaviour takes place and the affordability and availability of products, services and infrastructure.**
90. ***We call on the Government to develop and publish guidance to inform policy-making on behaviour change to meet climate and***

---

135 [Q 13](#) (Rob Hopkins), written evidence from the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)), The Local Government Association ([CCE0035](#)), [Q 94](#) (Stephen Edwards), written evidence from Sustrans ([CCE0070](#)), the Advertising Association ([CCE0037](#)) and Midlands Connect ([CCE0075](#))

136 [Q 17](#) (Sally Copley), [Q 89](#) (Chris Boardman), written evidence from Hubbub ([CCE0060](#)) and [Q 78](#) (Angela Terry)

137 Written evidence from the Centre for Research into Energy Demand Solutions ([CCE0069](#))

138 Written evidence from Hubbub ([CCE0060](#)), Dr Catherine Butler Dr Karen Parkhill ([CCE0054](#)), [Q 63](#) (Prof Wouter Poortinga), [Q 117](#) (Sir Patrick Vallance), [Q 98](#) (Prof Tim Lang), written evidence from Humanist Climate Action ([CCE0071](#)), the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)), Sustrans ([CCE0070](#)), Green Alliance ([CCE0051](#)) and n0co2.org ([CCE0020](#))

139 House of Lords Science and Technology Committee, *Behaviour Change* (2nd Report, Session 2010–12, HL Paper 179)

140 Written evidence from Green Alliance ([CCE0051](#)),

141 [Q 35](#) (Faisal Naru) and written evidence from Dr Caroline Moraes ([CCE0019](#)), Dr Claire Hoolohan and Dr Alison Browne ([CCE0029](#)) and Hubbub ([CCE0060](#))

142 Written evidence from Green Alliance ([CCE0051](#)), Carbon Copy ([CCE0008](#)), Duggan ([CCE0023](#)), [Q 35](#) (Faisal Naru), written evidence from Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)), the UCL Centre for Behaviour Change ([CCE0033](#)), Compass Group UK & Ireland ([CCE0084](#)), Trafford Council ([CCE0096](#)), the UCL Centre for Behaviour Change ([CCE0033](#)) and Oxfordshire County Council ([CCE0103](#))

*environmental goals. The guidance should cover the theories, drivers and levers of behaviour change and methods for using behaviour change frameworks in policy design and evaluation. We talk about this and a wider package of proposed guidance in Chapter 9.*

91. *Departments from across government should use the full range of policy levers—including regulatory and financial (dis)incentives, the development and adaptation of physical and choice environments, and communication and engagement—to enable changes to the most impactful climate and environmental behaviours.*

## CHAPTER 5: LEARNING FROM OTHER POLICY AREAS

---

*“COVID messaging on the first lockdown across society shows what a successful public communications campaign looks like for behaviour change.”*

*One Home, consumer awareness platform for clean technology and climate adaptation*

92. Lessons can be drawn from successes and failures in behaviour change interventions in other policy areas. These include public health, such as efforts to reduce levels of smoking and obesity, and actions to curb the spread of COVID-19 during the pandemic.

### Smoking, obesity and pensions

93. Previous interventions to reduce the prevalence of smoking in the UK were successful because they involved a range of policy levers and actors.<sup>143</sup> NIHR Public Health Policy Research Unit described the effectiveness of a multi-lever framework to reduce demand for tobacco products, including tax and price measures; regulation of the contents of products; regulation of product disclosures; packaging and labelling of products; education; communication and public awareness; and advertising, promotion and sponsorship.<sup>144</sup>
94. The CAST Consortium echoed the view that smoking interventions demonstrated a package of policy measures is required for behaviour change, stating:

“The main lesson to be learned is that significant lifestyle change is highly unlikely to be achieved solely with ‘soft’ informational or educational measures. The UK’s success in reducing smoking rates was down to its holistic approach, which included sticks as well as carrots—restrictive measures as well as encouragement.”<sup>145</sup>

The CAST Consortium also emphasised the importance of the use of a range of measures to promote cultural change, arguing that it is not possible to achieve adequate levels of behaviour change without changes to social norms.<sup>146</sup>

95. Previous public health interventions to tackle obesity are largely perceived to have been unsuccessful, primarily due to a failure to use several policy levers at the same time. Often, obesity-related interventions failed because they lacked upstream measures and relied excessively on individuals deciding to make dietary and lifestyle changes. Mr Park emphasised the importance of upstream or systemic changes in shaping the environment within which individuals make choices.<sup>147</sup> Meanwhile, Faisal Naru, Executive Director, Policy Innovation Centre, RPA/NESG, and Prof Dame Marteau told us previous obesity policies failed because they were too focused on raising awareness through communications campaigns, rather than changing behaviours with other policy levers.<sup>148</sup> Mr Naru used the “five fruit and vegetables a day” campaign in the US as a case study, explaining that because

---

143 Written evidence from the CAST Consortium ([CCE0048](#)), the NIHR Public Health Policy Research Unit ([CCE0024](#)) and Manchester Climate Monthly, Climate Emergency Manchester ([CCE0030](#))

144 Written evidence from the NIHR Public Health Policy Research Unit ([CCE0024](#))

145 Written evidence from the CAST Consortium ([CCE0048](#))

146 *Ibid.*

147 Written evidence from the Soil Association ([CCE0014](#)) and [Q 1](#) (Toby Park)

148 [Q 34](#) (Faisal Naru) and [Q 34](#) (Prof Dame Theresa Marteau)

the campaign was focused on information provision, understanding of the need to eat more fruit and vegetables increased but consumption did not.<sup>149</sup>

96. There has often been greater success in changing behaviours where upstream measures have formed part of interventions to tackle obesity. For example, research by the University of Cambridge shows the amount of sugar purchased by households in soft drinks reduced by 10 per cent within one year of the Soft Drinks Industry Levy Regulations 2018 being introduced.<sup>150</sup>
97. Beyond public health, a notable example of a successful behaviour change intervention characterised by shaping the choice environment is automatic enrolment into a pension scheme brought about by the Pensions Act 2008.<sup>151</sup> The Act changed the system to require employees to opt out of an occupational pension plan from their employer, rather than opt in. Mr Park described pension auto-enrolment as “a simple and elegant solution”.<sup>152</sup> He argued interventions like pension auto-enrolment could be “easily replicated” in the context of environment and climate change, suggesting that auto-enrolment into green pensions could be an option for further consideration.<sup>153</sup>
98. **Successful examples of enabling behaviour change in public health have relied on a package of policy measures. Interventions using solely awareness-raising measures—such as the ‘five-a-day’ fruit and vegetable campaign—have largely failed to deliver sustained behaviour change. The pensions auto-enrolment intervention has been successful because Government shaped the choice environment, rather than relying on individual action or information provision.**

### Corporate influence

99. Corporate influence played a role in delaying interventions on smoking and obesity. Witnesses told us the Government can learn from the role played by lobbying in the development and delivery of smoking and obesity policies and apply lessons to policies for behaviour change to meet climate change and environmental goals. Prof Dame Marteau suggested corporate interference “comes often in [the form of] delaying effective policies”.<sup>154</sup> This point was echoed by Manchester Climate Monthly in the context of smoking, who said there was “an extremely effective campaign of delay and systematic creation of doubt” around smoking interventions.<sup>155</sup> Prof Dame Marteau emphasised an important part of the Government’s leadership role in behaviour change across all areas is “to protect public policy from corporate interference”.<sup>156</sup>
100. **The effectiveness of policies aimed at improving public health has historically been undermined by lobbying by parts of the tobacco and food industries. There is a risk that parts of the food and fossil fuel industries, as well as heavy users of fossil fuels, similarly seek to undermine the policies needed to enable behaviour change to meet net zero.**

---

149 [Q 34](#) (Faisal Naru)

150 [Q 35](#) (Prof Dame Theresa Marteau), see also BMJ, *Changes in soft drinks purchased by British households associated with the UK soft drinks industry levy: controlled interrupted time series analysis* (10 March 2021): <https://www.bmj.com/content/372/bmj.n254> [accessed 15 September 2022]

151 [Pensions Act 2008](#)

152 [Q 2](#) (Toby Park)

153 *Ibid.*

154 [Q 37](#) (Prof Dame Theresa Marteau)

155 Written evidence from Manchester Climate Monthly, Climate Emergency Manchester ([CCE0030](#))

156 [Q 37](#) (Prof Dame Theresa Marteau)

101. *The Government should apply the lessons from successful and unsuccessful attempts to drive behaviour change in other policy fields to its efforts to enable behaviour change to meet the UK's climate and environmental goals. Key among these lessons is that coherent packages of policy measures must be deployed to enable the most impactful behaviour changes that will be needed. Measures should also be put in place to ensure the effectiveness of policies is not undermined by corporate lobbying.*

### COVID-19 pandemic

102. Many witnesses drew attention to the COVID-19 pandemic as an important learning opportunity. During the pandemic, the Independent Scientific Pandemic Insights Group on Behaviours (SPI-B) advised the Scientific Advisory Group for Emergencies (SAGE) on behavioural science considerations and, in turn, SAGE advised ministers and officials.<sup>157</sup> The minutes and papers from SAGE meetings were made public; and speaking on this point Sir Patrick Vallance emphasised the importance of “making sure that information was available to everybody” during the pandemic.<sup>158</sup> More broadly, Sir Patrick Vallance stated that providing the public with clear information about a situation using independent data can be effective for behaviour change:

“We saw over the pandemic that we had legions of armchair epidemiologists who got quite interested in seeing what was going on. The same is true: if the data is made available with completely independent, objective and robust information, it will help people to understand how we are doing, and it can link to the clarity of messaging around what individuals can do.”<sup>159</sup>

He said a lesson learned from the pandemic was that “society was pretty smart about knowing what to do”, suggesting, irrespective of the speed at which government guidance changed, through providing clear information people felt empowered to make changes to their behaviours in a timely manner.<sup>160</sup>

103. Some witnesses also told us lessons can be learned from government communications during the pandemic. One Home said: “COVID messaging on the first lockdown across society shows what a successful public communications campaign looks like for behaviour change.”<sup>161</sup> The transferable lessons that can be learned from government-led communications, public engagement and education during the pandemic are explored in more detail in Chapter 8.
104. There are similarities between the specific challenges faced during the pandemic and those that may be faced in behaviour change for climate and environmental goals, such as the widening of inequalities and the spread of misinformation. Sir Patrick Vallance told us COVID-19 “both fed off inequality and fed inequality” and expressed concern that the same is probably true in the context of climate change and environmental damage, stating: “It is worse for those who are poorer, disadvantaged and marginalised. It will

<sup>157</sup> [Q 108](#) (Sir Patrick Vallance)

<sup>158</sup> *Ibid.*

<sup>159</sup> [Q 110](#) (Sir Patrick Vallance)

<sup>160</sup> [Q 111](#) (Sir Patrick Vallance)

<sup>161</sup> Written evidence from One Home ([CCE0045](#))

make that gap wider if it is not handled properly.”<sup>162</sup> During the pandemic, Ofcom applied rules on harmful content in the Broadcasting Code to COVID-19 misinformation, and Carnegie UK suggested that Ofcom could use the same approach in the context of misinformation about climate change and environmental damage.<sup>163</sup>

105. However, there are some clear distinctions between behaviour change in the pandemic and behaviour change required to meet climate and environmental goals, and the consequent limits to transferable learning. In particular, Mr Lord emphasised behaviour change for climate change and the environment would need to be “sustainable and sustained”, whereas the pandemic required time-limited actions.<sup>164</sup> Sir Patrick Vallance echoed this concern from an organisational point of view, explaining SAGE and SPI-B are set up for “specific emergency situations”, suggesting this structure is not necessarily appropriate for longer term emergencies.<sup>165</sup> Furthermore, levels of perceived personal responsibility and personal efficacy differ in relation to the pandemic and climate change. Prof Poortinga described the results of a study comparing responses to COVID-19 and climate change, which found that in the pandemic there was “a clear shared responsibility between individuals and government”, and that “people felt that their own actions would be effective”. In the context of climate change, respondents saw the responsibility as “clearly for government” and felt their own individual actions would be less effective.<sup>166</sup>
106. **The COVID-19 pandemic and restrictions put in place to curb the spread of the virus brought about huge changes to everyday life across the population. The individual’s choice environment was changed, and people had to form new habits and routines to adapt to the changing circumstances. We recognise that the changes demanded by the pandemic were seen as a short-term response to a short-term emergency, nevertheless, as we emerge from the pandemic, the Government has an opportunity to reflect on lessons learned about behaviour change from COVID-19 and consider applying such lessons to wider policy contexts.**
107. *The Government should seize the opportunity to evaluate behaviour change which took place during the COVID-19 pandemic to understand the theory, drivers, and levers behind the changes, with a view to applying lessons learned to other critical policy areas, including climate change and the environment. The evaluation should include an assessment of the effectiveness of principles behind COVID-19 behaviour change interventions, such as open information, clear messaging about personal action, delivery of messages by both politicians and scientists, clarity about the role of government in relation to the role of individual action, and the use of an independent advisory structure through SAGE and SPI-B. The evaluation of lessons learned from behaviour change during the pandemic should be included in the package of guidance for departments working on policy development and implementation, which we discuss further in Chapters 8 and 9.*

---

162 [Q 119](#) (Sir Patrick Vallance)

163 Written evidence from Carnegie UK ([CCE0010](#))

164 [Q 112](#) (Tim Lord)

165 [Q 108](#) (Sir Patrick Vallance)

166 [Q 60](#) (Prof Wouter Poortinga)

## CHAPTER 6: DELIVERING BEHAVIOUR CHANGE IN PARTNERSHIP

---

*“All individual behaviour is local ... harnessing the power of community groups to influence both local people and local policies will be central to changing behaviours across the board.”*

*Winchester Action on the Climate Crisis*

*“Local authorities, working with all the stakeholders in their area, are better able to design and implement effective adaptation measures, as these are very place-based.”*

*Carbon Copy*

*“Business is critical to enabling and inspiring many people to take action across society.”*

*IKEA UK & Ireland*

*“The Scottish Government understands that the changes needed to reach net zero will require significant behavioural changes at both societal and individual levels.”*

*Kersti Berge, Director of Energy and Climate Change, the Scottish Government*

108. Civil society, including faith groups, as well as local government, businesses and devolved governments and administrations are all playing distinct roles to enable behaviour change to meet climate and environmental goals. We heard many examples of action being taken by these groups and organisations, the challenges they face and how the Government could better work with and support them.
109. We explore the overarching role of central government in coordinating organisations and groups to support behaviour change in more detail in Chapter 9.

### **Civil society: community groups, charities and faith groups**

110. Community groups, charities and faith groups are supporting behaviour change at a local level and there is enthusiasm from many groups and organisations to do more.
111. Winchester Action on the Climate Crisis, a local community group, emphasised the potential role they and similar groups could play given the local aspect of behaviour change: “All individual behaviour is local ... harnessing the power of community groups to influence both local people and local policies will be central to changing behaviours across the board.”<sup>167</sup>
112. Community groups, charities and faith groups are a source of expertise and are often seen as trusted messengers by the communities they work within.<sup>168</sup> They can help to fill knowledge and skills gaps, normalise behaviours associated with reduced impacts on climate change and the environment, and

---

<sup>167</sup> Written evidence from Winchester Action on the Climate Crisis (WinACC) ([CCE0006](#))

<sup>168</sup> Written evidence from WRAP ([CCE0003](#)), South Cambridgeshire District Council ([CCE0105](#)) and Ashden ([CCE0023](#))

tailor behaviour change interventions.<sup>169</sup> We also heard that engaging civil society and community groups is a means to increase public participation in climate and environment-related decision-making and can add momentum to the delivery of long-term changes.<sup>170</sup>

### **Box 1: Examples of civil society action**

Witnesses highlighted initiatives and campaigns driven by civil society which support individuals, households and communities with behaviour change in energy, diet, travel and waste.

Behaviour change activities are being delivered through partnerships between charities, communities and others:

- Ugo Vallauri, Co-Founder and Policy Lead at the Restart Project, described community repair ‘Restart Parties’ initiated by the organisation for people to repair products, supporting prolonged product lives.
- Sustrans outlined increases in walking and cycling achieved through active travel schemes run by the charity in Stockton-on-Tees and the London borough of Lambeth.
- We heard about an award programme run by the Soil Association which promotes “healthy and sustainable food in the dining room, food and nutrition on the curriculum and encourages learning through activities such as farm visits, growing, cooking and sensory tasting classes” and which, evaluation has shown, results in increased fruit and vegetable consumption in participating schools.
- Humane Society International UK similarly described their work with major caterers supporting chefs to develop menus and market options which produce fewer emissions.
- The National Lottery Community Fund told us how a network of 70 community fridges set up by Hubbub redistributes food and reduces food waste and described a separate community-owned renewable energy generation scheme in the Inner Hebrides, supported by lottery funding, which provides renewable energy as well as supporting social cohesion and job creation.

We also heard about several community-driven efforts:

- Rob Hopkins, co-founder of the Transition Network, told us about a “street-by-street behaviour change” model where neighbours work together to review and reduce their emissions and which has also delivered cost savings and community cohesion.

169 Written evidence from Dr Viktoria Spaiser and Prof Cristina Leston-Bandeira ([CCE0016](#)), South Cambridgeshire District Council ([CCE0105](#)) and Winchester Action on the Climate Crisis ([CCE0006](#))

170 Written evidence from the IPPR ([CCE0089](#)) and [Q 92](#) (Stephen Edwards), [Q 21](#) (Fiona Richards)

- Pam Warhurst, founder of Incredible Edible, described projects where residents use local spaces to grow food and, through the process, have also created a sense of social cohesion.
- Dr Shanon Shah, Director of Faith for the Climate, shared examples of faith groups reducing waste through behaviour change. He described initiatives in the Muslim and Hindu communities respectively to reduce use of single-use plastics in mosques and pick litter and mentioned Faith for the Climate’s work with Christian, Buddhist and Sikh communities.

Source: Written evidence from Dr Viktoria Spaiser and Prof Cristina Leston-Bandeira ([CCE0016](#)), South Cambridgeshire District Council ([CCE0105](#)) and Winchester Action on the Climate Crisis ([CCE0006](#)) also [Q 17](#) (Ugo Vallauri), [Q 11](#) (Rob Hopkins), [Q 12](#) (Pam Warhurst), [Q 12 and Q 14](#) (Shanon Shah), [Q 17](#) (Sally Copley), and written evidence from Sustrans ([CCE0070](#)), the Soil Association ([CCE0014](#)), the Humane Society International UK ([CCE0057](#)), The National Lottery Community Fund ([CCE0031](#))

113. Witnesses suggested that access to continuous and adequate funding for community groups to drive behaviour change is often lacking.<sup>171</sup> Fiona Richards, Operations Director England North, the Conservation Volunteers (TCV), said sustainable funding was needed to ensure lasting impacts from projects.<sup>172</sup> We also heard that national guidance and regulation and good local governance structures are needed to support community groups to deliver behaviour change.<sup>173</sup> Ashden and n0co2.org suggested that local authorities should act as an interface between central government and civil society organisations,<sup>174</sup> however, as we discuss in the following local government sub-section, resource constraints in local authorities can delay project approvals for community groups.
114. Mr Vallauri highlighted limits to the impact that community activities can have where the scale of issues faced is large:
- “We also need to be aware of the size of the challenge. If we are talking about the UK being the second largest per capita producer of electrical waste at 24 kilograms per person per year, between 20 and 40 kilograms of waste might be prevented at each one of these events—and they happen in each community once a month—while waste is generated every minute.”<sup>175</sup>
115. **Community groups, charities and faith groups are delivering reductions in emissions and environmental impacts and adaptation in communities across the UK, often while responding to other local needs. While behaviour change on the scale needed to meet the UK’s climate and environmental goals requires action from the Government and other organisations, community-level behaviour change can make an important contribution.**
116. *The Government should take a holistic view of the benefits of climate and environmental activities delivered by community groups, charities and faith groups and recognise and celebrate the*

171 [Q 18](#) (Sally Copley) and written evidence from South Cambridgeshire District Council ([CCE0105](#)) and Sustrans ([CCE0070](#))

172 [Q 18](#) (Fiona Richards)

173 Written evidence from WinACC Winchester Action on the Climate Crisis ([CCE0006](#)) and Sustrans ([CCE0070](#))

174 Written evidence from Duggan ([CCE0023](#)) and n0co2.org ([CCE0020](#))

175 [Q 18](#) (Ugo Vallauri)

*life-enhancing change they achieve. Government policies should harness the many contributions of civil society and seek to unblock the challenges they face.*

### Local government

117. While the powers and responsibilities of local government bodies<sup>176</sup> vary, many have influence in areas where behaviour change can contribute to climate and environment goals such as transport, buildings, energy and waste management.<sup>177</sup>
118. Dr Spaiser and Prof Leston-Bandeira argued that the scale of change needed to meet climate and environmental goals means “policies and interventions need to be national”, but local government bodies “can be crucial partners” for implementing national policies as they “have a better sense of what can work at the local level”.<sup>178</sup> Others similarly referred to local government’s ability to tailor interventions to the local context,<sup>179</sup> and Carbon Copy noted: “Local authorities, working with all the stakeholders in their area, are better able to design and implement effective adaptation measures, as these are very place-based.”<sup>180</sup>
119. Local government is performing a range of roles and activities to deliver behaviour change to meet climate and environmental goals, including:
  - promoting understanding by providing information and running communications campaigns;
  - organising and implementing specific behaviour change interventions using various levers including incentives;
  - providing infrastructure and setting rules for how it is used;
  - engaging residents, with one function of this being to ensure all voices are heard, and;
  - working in partnership with community groups, including through providing grants.<sup>181</sup>

---

176 We received evidence from local bodies and representative organisations at different levels including unitary authorities, London boroughs, metropolitan boroughs, county councils, district, borough and city councils, parish and town councils.

177 Housing, Communities and Local Government Committee, *Local government and the path to net zero* (Fifth Report, Session 2021–22, HC 34), pp 7–8 and 11. See also National Audit Office, *Local government and net zero in England* (Session 2021–22, HC 304), pp 8 and 20–21. Written evidence from UK100 ([CCE0108](#))

178 Written evidence from Dr Viktoria Spaiser and Prof Cristina Leston-Bandeira ([CCE0016](#))

179 Written evidence from South Cambridgeshire District Council ([CCE0105](#))

180 Written evidence from Carbon Copy ([CCE0008](#))

181 Written evidence from Swale Borough Council ([CCE0100](#)), Hampshire County Council ([CCE0009](#)), the National Association of Local Councils (NALC) ([CCE0093](#)), the Greater Manchester Combined Authority Health and Social Care Partnership ([CCE0109](#)), Manchester City Council and Manchester Climate Change Agency ([CCE0102](#)), Oxfordshire County Council ([CCE0103](#)), Local Government Association ([CCE0035](#)), Sustrans ([CCE0070](#)), District Councils’ Network ([CCE0107](#)) and South Cambridgeshire District Council ([CCE0105](#))

### Box 2: Examples of local authority action

We heard examples of local government supporting behaviour change through cross-cutting initiatives and campaigns as well as specific measures focused on travel and waste reduction:

- Manchester City Council told us one of the five workstreams in their current climate change action plan is “dedicated solely to influencing behaviour across the organisation and within the city”. A range of projects including ward-level climate action plans and a climate assembly are being delivered by three specially appointed neighbourhood officers. The Council has also rolled out carbon literacy training to staff.
- Hampshire County Council said similarly that behaviour change “forms a key component” of their climate change strategy and described a cross-cutting social media campaign the Council has run “showing residents where they can go on holiday locally, find local produce in Hampshire and find second-hand items within local communities or online”.
- In Bath, residents of the new Bath Riverside development were incentivised to use lower-carbon transport modes through a free one-month bus pass, free car club membership and a £100 cycle voucher.
- Dr Catherine Butler, Senior Lecturer in Human Geography at the University of Exeter, and Dr Karen Parkhill, Senior Lecturer in Human Geography at the University of York, described the Greater Manchester Cycling Hub scheme which has encouraged cycling in the city by providing dedicated cycle parking spaces and ensuring workplace locker and shower facilities are available.
- East Lothian Council told us about a 20mph speed limit trial it introduced to encourage active travel by making streets quieter and safer, which has received positive feedback from residents, while Oxfordshire County Council explained that they are supporting villages and parishes to similarly reduce local speed limits to support active travel.
- Asthma UK and the British Lung Foundation welcomed London’s Ultra Low Emission Zone (ULEZ) and clean air zones in Bath and Birmingham which have reduced vehicle traffic.
- Local government bodies are encouraging take-up of electric vehicles (EVs) through charger installation programmes, and, alongside doing this, Oxfordshire County Council ran a communications campaign to promote take-up and provided residents with opportunities to test drive EVs. Gloucester City Council and Stroud District Council are working to establish an EV car club.
- The City of London Corporation described several initiatives it has run including a scheme for residents and workers to return electronic equipment to be reused, recycled or repurposed, a community exchange of unwanted items and a campaign whereby local businesses sign-up to remove single-use plastic items from their internal catering facilities.

*Source: Written evidence from Manchester City Council and Manchester Climate Change Agency (CCE0102), Hampshire County Council (CCE0009), the Local Government Association (CCE0035), Dr Catherine Butler and Dr Karen Parkhill (CCE0054), East Lothian Council (CCE0098), Oxfordshire County Council (CCE0103), Asthma UK and the British Lung Foundation (CCE0012), The District Councils’ Network (CCE0107) and The City of London Corporation (CCE0038)*

120. Many witnesses told us resource limitations—including funding and staffing—restrict the ability of local government to deliver behaviour change policies and initiatives.<sup>182</sup> Oxfordshire County Council suggested that “intermittent and competitive funding not only puts a strain on council resources but also fails to deliver the necessary system-level change”.<sup>183</sup> Gareth Ellis, Project Director at The Green Valleys which develops community projects around renewable energy, energy efficiency and biodiversity, explained that local authority staffing constraints delayed approvals for their projects:

“When we need the necessary support from local government in particular, or other statutory bodies, we increasingly find that their limited resources—particularly in staff time—mean that particular projects can be marginalised or brushed aside because the officers do not have time to deal with them, or they simply go into a queue.”<sup>184</sup>

We heard that funding and resources for the evaluation of behaviour change interventions are especially limited.<sup>185</sup> Swale Borough Council explained that the resulting lack of data “reduces the ability to provide a strong business case for funding for these types of projects”.<sup>186</sup>

121. Witnesses suggested the relationship between local authorities and central government could be more collaborative.<sup>187</sup> Manchester City Council and Manchester Climate Change Agency emphasised the need for “better joined-up approaches between the Government and local authorities”,<sup>188</sup> and Oxfordshire County Council similarly suggested the Government should consider launching “fully integrated behaviour change campaigns in which the upstream and downstream elements come together” for local authorities to pick up.<sup>189</sup>

122. We also heard that there are limits to what local government bodies can achieve given their powers and the policy environment they operate within.<sup>190</sup> UK100 made this point with reference to the example of emissions from buildings:

“Whilst local authorities can have significant influence over the emissions related to new buildings in their area, they have more limited powers to affect the energy performance of existing buildings. Therefore, the role that they can play in enabling behaviour change where it would have the most impact—in people’s homes—is limited.”<sup>191</sup>

---

182 Written evidence from Manchester City Council and Manchester Climate Change Agency (CCE0102), Dr Viktoria Spaier and Prof Cristina Leston-Bandeiras (CCE0016), Sustrans (CCE0070), National Association of Local Councils (CCE0093), East Lothian Council (CCE0098), Trafford Council (CCE0096), Greater Manchester Directors of Public Health (CCE0097) and Swale Borough Council (CCE0100)

183 Written evidence from Oxfordshire County Council (CCE0103)

184 Q 18 (Gareth Ellis)

185 Written evidence from East Lothian Council (CCE0098), Greater Manchester Directors of Public Health (CCE0097) and Trafford Council (CCE0096)

186 Written evidence from Swale Borough Council (CCE0100)

187 Q 3 (Toby Park)

188 Written evidence from Manchester City Council and Manchester Climate Change Agency (CCE0102)

189 Written evidence from Oxfordshire County Council (CCE0103)

190 Written evidence from Trafford Council (CCE0096), Oxfordshire County Council (CCE0103) and the District Councils’ Network (CCE0107)

191 Written evidence from UK100 (CCE0108)

UK100 went on to argue that with “more enabling powers, supported by the skills, knowledge, and capacity to use them well, local authorities can deliver more impact on a significant proportion of UK emissions”.<sup>192</sup> The Institute for Public Policy Research (IPPR) made a similar point.<sup>193</sup>

123. In their submission, the Department for Levelling Up, Housing and Communities (DLUHC) said the Net Zero Forum announced in the Net Zero Strategy would create “a formal mechanism to facilitate ongoing discussion between national and local government” through which the Government and local authorities in England will work towards establishing “clearer expectations about the role of local government in achieving net zero”.<sup>194</sup>
124. **Local government bodies are in a central position to deliver change through place-based solutions due to their proximity to individuals, households and communities and their ability to work with civil society and to tailor interventions to specific groups. However, despite many brilliant examples of local government bodies supporting residents and communities to reduce emissions and environmental impacts, and a desire from many to do more, they often lack the necessary funding and staffing and face many other pressures. The absence of consistent policies and communications from central government also hinders their ability to deliver change.**
125. *The Government should use the Net Zero Forum announced in the Net Zero Strategy to work through the challenges faced by local government in delivering behaviour change interventions—including insufficient funding and resources—and ensure the forum meets local government’s expectations for a more collaborative and joined-up relationship with central government.*

### Business

126. Several submissions stressed the central role businesses can play to enable behaviour change to meet climate and environmental goals. The British Retail Consortium said, “The retail industry has a key role to play to help the UK decarbonise,”<sup>195</sup> and IKEA UK & Ireland told us: “Business is critical to enabling and inspiring many people to take action across society.”<sup>196</sup> The Aldersgate Group, a coalition including some of the UK’s largest businesses, and John Lewis made a similar point.<sup>197</sup>
127. Businesses can develop products and services with lower carbon and environmental footprints and make them more affordable and available. Sir Patrick Vallance said: “The private sector will be a major part of the technology innovation and the ability to make that technology innovation affordable and applicable.”<sup>198</sup> Witnesses described the role of businesses to improve product design to promote durability, reuse and recycling,<sup>199</sup> develop

---

192 Written evidence from UK100 ([CCE0108](#))

193 Written evidence from the IPPR ([CCE0089](#))

194 Written evidence from the DLUHC ([CCE0063](#))

195 Written evidence from the British Retail Consortium ([CCE0042](#))

196 Written evidence from IKEA UK & Ireland ([CCE0104](#))

197 Written evidence from Aldersgate Group ([CCE0113](#)) and John Lewis ([CCE0092](#))

198 [Q 120](#) (Sir Patrick Vallance)

199 Written evidence from Aldersgate Group ([CCE0113](#))

new retail finance products such as green pensions,<sup>200</sup> create product-as-a-service models whereby customers can hire goods rather than own them,<sup>201</sup> and provide infrastructure, like EV charging points, for customers.<sup>202</sup>

128. Businesses can promote behaviour change among their customers through specific campaigns, for example to shape product use and disposal.<sup>203</sup> We discuss the wider role that advertising can play in Chapter 8.
129. Witnesses also highlighted how businesses can influence workplace behaviour and suggested these behaviours can sometimes spill over into households. Mr Naru described changing behaviour in organisations as a “hidden accelerator for climate change”.<sup>204</sup> Others made similar points,<sup>205</sup> and James Hand, Co-founder of Giki, a tech organisation which has developed digital tools promoting sustainability including for organisations, added: “People are much more willing to change when those around them are changing. By “communities”, we do not just mean your local community. We have seen very effective change in companies.”<sup>206</sup>

### Box 3: Examples of business action

We heard examples of businesses supporting behaviour change through developing and offering different products and services and delivering behaviour change initiatives:

- The Aldersgate Group explained that some of their retail members “sought to put in place circularity principles for product design and business models”, including by using lower impact raw materials, designing for longevity by increasing quality thresholds and providing consumers with information on product care and extended life guarantees. John Lewis, IKEA UK & Ireland and Amazon UK also referred to commitments and activities in some of these areas.
- Several witnesses referred to new products developed by major food businesses including plant-based versions of the sausage roll, meatballs and burger.
- Businesses, including Compass Group UK & Ireland, have been providing more local, seasonal and plant-based options on catering and restaurant menus to support a reduction in the carbon and environmental impacts of the food purchased. Prof Dame Marteau described such an initiative in University of Cambridge cafeterias which resulted in an estimated 33 per cent reduction of emissions of the food served.
- Carmel McQuaid, Head of Sustainable Business at Marks & Spencer, described behaviour change initiatives run by the retailer around food waste, plant protein consumption, reuse and recycling of clothes and energy use.

200 [Q 2](#) (Toby Park) and written evidence from the UK Sustainable Investment and the Finance Association (UKSIF) ([CCE0028](#))

201 Written evidence from the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)), and [Q 75](#) (Hugo Spowers)

202 Written evidence from John Lewis ([CCE0092](#)) and McDonald’s UK&I ([CCE0007](#))

203 Written evidence from WRAP ([CCE0003](#)), Hubbub ([CCE0060](#)) and Dr Viktoria Spaiser and Prof Cristina Leston-Bandeiras ([CCE0016](#))

204 [Q 37](#) (Faisal Naru)

205 [Q 128](#) (Steve Smith), written evidence from Aldersgate Group ([CCE0113](#)) and John Lewis ([CCE0092](#))

206 [QQ 99, 101](#) (James Hand)

- IGD described trials it had run with retailers, manufacturers and the University of Leeds to test how changes at the point of sale could “shift consumers towards making healthier, more sustainable food and drink choices”.
- John Lewis referred to a communications campaign it ran around COP26 with messages on food waste and noted trialling new propositions including a plastics takeback service.
- Hubbub described their work with several businesses including IKEA UK & Ireland to support customers to reduce resource consumption and waste, and Tesco similarly mentioned Hubbub’s work with private sector partners.

Source: [Q 84](#) (Angela Terry), [Q 37](#) (Prof Dame Theresa Marteau), [Q 34](#) (Carmel McQuaid) and written evidence from Aldersgate Group ([CCE0113](#)), John Lewis ([CCE0092](#)), IKEA UK & Ireland ([CCE0104](#)), Amazon UK ([CCE0095](#)), McDonald’s UK&I ([CCE0007](#)), Compass Group UK & Ireland ([CCE0084](#)), the Humane Society International UK, ([CCE0057](#)), the Institute of Grocery Distribution ([CCE0099](#)), Hubbub ([CCE0060](#)) and Tesco PLC ([CCE0106](#))

130. The ability of businesses to support behaviour change to meet climate and environmental goals is constrained due to several challenges.
131. Witnesses talked about a need for policy certainty to support innovation and investment in products and services with lower emissions and environmental impacts.<sup>207</sup> Mr Park told us: “We definitely need some long-term policy commitments so industry can respond and have that confidence in R&D, investment, training and so on. A future ban on combustion vehicles and a future ban on fossil fuel boilers are good moves for that reason.”<sup>208</sup> Mr Lord and others made a similar point.<sup>209</sup>
132. We heard that a lack of regulatory standards in certain areas is hindering fair competition for products with reduced emissions and environmental impacts.<sup>210</sup> We discuss product standards further in Chapter 7.
133. Businesses face specific challenges in switching to a more circular business model.<sup>211</sup> Prof Peattie gave the example of accounting and financing barriers faced by businesses operating a product-as-a-service model.<sup>212</sup> Amazon outlined how competition law can hinder businesses seeking to achieve environmental goals, particularly through placing barriers to information-sharing and collaboration.<sup>213</sup>
134. In its submission to the Committee, BEIS referred to commitments in the Government’s Net Zero Strategy to support green choices, one of which was to make “green choices affordable and easy by working with businesses and industry to set strong regulatory signals[,] and collaborate to reduce costs

---

207 Written evidence from Tesco PLC ([CCE0106](#)), IKEA UK & Ireland ([CCE0104](#)) and Amazon UK ([CCE0095](#))

208 [Q 3](#) (Toby Park)

209 [Q 120](#) (Tim Lord), [Q 2](#) (Ewa Kmietowicz) and written evidence from Dr Viktoria Spaiser and Prof Cristina Leston-Bandeira ([CCE0016](#))

210 Written evidence from Aldersgate Group ([CCE0113](#))

211 [Q 75](#) (Trewin Restorick), written evidence from Aldersgate Group ([CCE0113](#)) and the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#))

212 [Q 76](#) (Prof Ken Peattie)

213 Written evidence from Amazon UK ([CCE0095](#))

and provide better quality, longer lasting and lower environment impact products, and services”.<sup>214</sup>

135. **Businesses have a key role to play in enabling behaviour change to meet climate and environmental goals, including through increasing the affordability and availability of products and services with lower climate and environmental impacts and by engaging their customers and employees. Many businesses are keen to take on this role and there are some excellent ongoing initiatives led by businesses, but challenges arising from the policy and regulatory environment are constraining efforts.**
136. *The Government must provide clear, consistent and sustained policy signals to stimulate investment and innovation. To this end the Government should set dates for banning the use of technologies with the highest emissions and environmental impacts where suitable alternatives exist or are foreseeable, where appropriate with a phased programme. For technologies where there is clear evidence on feasible alternatives, dates for final bans and milestones should be set within the next 12 months. The Government should gather and review evidence regarding the other most carbon and resource intensive technologies on a continuous basis going forward. The Government should also strengthen product standards, as we go on to discuss in Chapter 7.*
137. *The Government should step up its strategic engagement at a senior level with businesses operating in the key behaviour change areas—personal travel, food, energy use at home and consumer goods retail—with a focus on developing sectoral action plans to increase the availability and affordability of green products and services in line with climate and environmental goals.*
138. *Greater action should be taken to ensure that businesses who offer products and services with lower climate and environmental impacts can compete on a level playing field. Over the next 12 months, the Government should conduct a review of regulatory barriers faced by businesses seeking to offer products and services with these characteristics in the key behaviour change areas and set out an action plan for addressing those barriers.*

### **Devolved governments and administrations**

139. The devolved governments and administrations hold powers in several areas with relevance for behaviour change to meet climate and environment goals, including environment, transport, housing, planning and education.<sup>215</sup>

### *Scotland*

140. Kersti Berge, Director of Energy and Climate Change at the Scottish Government, told us:

“It is clear from the available evidence, including recent assessments from the Committee on Climate Change (CCC), that technological

214 Written evidence from BEIS (CCE0059)

215 Cabinet Office, *Devolution and You*: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/769117/Devolution-Postcard.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/769117/Devolution-Postcard.pdf) [accessed 15 September 2022]

advances and solutions on their own will not be sufficient to meet our statutory emission targets. The Scottish Government understands that the changes needed to reach net zero will require significant behavioural changes at both societal and individual levels.”<sup>216</sup>

141. The Scottish Government uses the Individual, Social and Material (ISM) Tool to consider behaviour change to reduce emissions as part of its policy-making. Ms Berge explained that “ISM takes insights from across the main behavioural science disciplines and turns them into a practical tool to be used through the policy process”.<sup>217</sup>
142. Ms Berge also referred to the Scottish Government’s Public Engagement Strategy for Climate Change, which she said “sets out our vision for everyone in Scotland to understand the challenges we face and embrace their role in our transition to a net zero and climate ready Scotland”.<sup>218</sup> She added that through Scotland’s recent Climate Assembly the Scottish Government gained “a key insight into the measures which the Scottish public expect from Government for a just transition to net zero emissions by 2045”.<sup>219</sup>
143. Ms Berge noted: “Scotland cannot fully achieve its transition to net zero without UK Government action. Both the Scottish Government and UK Government targets are mutually dependent on each other’s actions.”<sup>220</sup>

### *Wales*

144. Julie James AS/MS, the Welsh Government’s Minister for Climate Change, told us the approach set out in Wales’s second carbon budget is aligned with the CCC’s advice that “nearly 60 per cent of the abatement in the ‘balanced pathway’ for the UK by 2035 relies on societal or behaviour change”.<sup>221</sup> Ms James explained that the second carbon budget “captures the key asks of the Welsh public under the emission sector chapters (alongside actions that will be taken by the public sector and industry and business)”.<sup>222</sup>
145. In some areas the Welsh Government is undertaking further work “to determine what the right path looks like” Ms James said, including analysis of carbon and financial impacts of desired behaviours and social research into motivations and barriers to action.<sup>223</sup>
146. We also heard from Ms James that the Welsh Government have committed to consulting on a Public Behavioural Change Engagement Strategy by summer 2022.<sup>224</sup>
147. Ms James noted that the UK Government holds powers for some important policy levers related to behaviour change to reduce emissions, and added: “Without a coherent approach, it will be more expensive and difficult for us to effectively engage society within Wales.”<sup>225</sup>

---

216 Written evidence from the Scottish Government ([CCE0080](#))

217 *Ibid.*

218 *Ibid.*

219 *Ibid.*

220 *Ibid.*

221 Written evidence from the Welsh Government ([CCE0081](#))

222 *Ibid.*

223 *Ibid.*

224 *Ibid.*

225 *Ibid.*

*Northern Ireland*

148. Edwin Poots MLA, then Minister of Agriculture, Environment and Rural Affairs for Northern Ireland, told us: “Behaviour change is considered and built into all of our new and existing policy using an evidence-based approach. We recognise the need for education and awareness raising to secure climate and environmental goals and deliver on our objectives.”<sup>226</sup>
149. Mr Poots provided several examples of initiatives by the Department of Agriculture, Environment and Rural Affairs (DAERA) to promote behaviour change to meet climate and environmental goals, including grants to promote behaviour change and raise awareness of environmental issues around waste and resources, a programme run with councils to raise awareness of and encourage best practice in recycling, and communications campaigns and an app which promote behaviours that could reduce concentrations of air pollution and the public’s exposure.<sup>227</sup>

*Government position*

150. The UK Government’s Net Zero Strategy states: “The UK Government and the Devolved Administrations are committed to working together to deliver coordinated policy action to meet respective emissions reduction targets across the UK.”<sup>228</sup>
151. **We welcome the Scottish and Welsh governments’ acknowledgements that reaching net zero will require significant changes to behaviour and the efforts of Northern Ireland’s Department for Agriculture, Environment & Rural Affairs to pursue climate and environment behaviour change initiatives. The Scottish Government’s embedding of the Individual, Social and Material Tool in policy-making and Public Engagement Strategy for Climate Change, and the Welsh Government’s commitment to produce a Public Behavioural Change Engagement Strategy, are very positive steps.**
152. *The Government should make an assessment of the devolved governments’ strategies and initiatives with a view to replicating the most effective elements in the public engagement strategy which we recommended in Chapter 3 and discuss further in Chapter 8.*

---

226 Written evidence from Edwin Poots MLA ([CCE0082](#))

227 *Ibid.*

228 HM Government, *Net Zero Strategy: Build Back Greener* (October 2021), p 250: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1033990/net-zero-strategy-beis.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf) [accessed 15 September 2022]

## CHAPTER 7: CHALLENGES AND OPPORTUNITIES IN KEY BEHAVIOUR CHANGE AREAS

---

*“It should not take bravery to cross the street or ride to school. While it does, we will jump in the car.”*

*Chris Boardman, Active Travel Commissioner for England*

*“Switching to a more plant-based diet has been identified as the single biggest way to reduce our environmental impact on the planet. This does not require a full switch to [a] vegan diet but a reduction in the most resource intensive animal products such as those factory-farmed.”*

*World Animal Protection*

*“When we think about ... energy efficiency, the co-benefits are lower bills, improved energy security, reduced import dependence, warmer homes, jobs in local areas and so on.”*

*Tim Lord, Associate Senior Fellow, the Tony Blair Institute for Global Change*

*“The science tells us we are living beyond our means materially.”*

*Professor Ken Peattie, Professor of Marketing and Strategy, Cardiff Business School*

153. As Chapter 2 set out, there is a widespread consensus that changes will be needed to how we travel, what we eat and buy, and energy use at home if we are to meet the UK’s climate and environmental goals. This chapter explores challenges and opportunities in these key areas, with a focus on actions that can deliver the largest climate and environmental benefits. It is not exhaustive, given the wide range of behaviours and policies within these areas.

### Travel

#### Why

154. Transport makes the largest contribution to emissions. Among areas where behaviour change is relevant, changes to personal travel—including the uptake of EVs, a shift from car use to active travel and public transport, and a reduction in aviation—could deliver meaningful emissions reductions. Chris Boardman, Active Travel Commissioner for England, explained, “Road transport contributes about a quarter of all carbon dioxide emissions at 115 million tonnes a year,”<sup>229</sup> and others made similar points.<sup>230</sup> Witnesses also mentioned emissions from aviation.<sup>231</sup> Green Alliance noted that aviation accounts for 7 per cent of UK emissions,<sup>232</sup> while the Centre for Research into Energy Demand Solutions told us higher income households “contribute most in absolute terms to increases in frequent flying”.<sup>233</sup>
155. Health benefits can be delivered by a shift towards active travel, including walking and cycling,<sup>234</sup> and Mr Boardman and others suggested these health

---

229 [Q 85](#) (Chris Boardman)

230 Written evidence from the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)), Sustrans ([CCE0070](#)) and Getir ([CCE0072](#))

231 Written evidence from the CAST Consortium ([CCE0048](#))

232 Written evidence from Green Alliance ([CCE0051](#))

233 Written evidence from the Centre for Research into Energy Demand Solutions ([CCE0069](#))

234 [Q 85](#) (Stephen Edwards)

improvements could reduce the burden on the National Health Service (NHS).<sup>235</sup>

### *What*

156. In the CCC's ranking of actions requiring some consumer engagement up to 2035, adoption of ultra-low emissions vehicles would deliver the largest contribution to emissions reductions.<sup>236</sup> Several witnesses said the shift towards EVs should be a priority due to the scale of emissions reductions this can achieve.<sup>237</sup> The second largest contribution in the CCC's ranking could be delivered by reducing international aviation.<sup>238</sup> Many witnesses called for a reduction in flights with an emphasis on trips taken by frequent flyers.<sup>239</sup>
157. However, witnesses explained that air pollution and emissions from transport will not be fully addressed through the shift to EVs since the degradation of tyres—which produce particulate matter—will continue and electricity used to power EVs is not yet fully decarbonised.<sup>240</sup> The CAST Consortium told us reduced use of private cars would “improve air quality particularly in deprived communities that are disproportionately affected by air pollution, as well as around schools and other key infrastructure such as hospitals”.<sup>241</sup> While Professor Jillian Anable, Professor of Transport and Energy at the Institute for Transport Studies at the University of Leeds, explained:

“The forecasts for the increase in the size of the car fleet, as in the number of vehicles, combined with their size and the weight of those vehicles, puts such an enormous strain on the electricity grid even if they are all electric that it would take us longer to get to a renewable electricity system to fuel those cars.”<sup>242</sup>
158. Many witnesses emphasised the need for a change in the modes of travel used (‘modal shift’) from private vehicles to active travel and public transport.<sup>243</sup> Midlands Connect noted that alongside the switch to EVs: “As much focus needs to be given to shifting away from the car to using active and public transport.”<sup>244</sup>
159. Several witnesses argued that an overall reduction in car use should be pursued. Views differed on by how much, with Mr Edwards and Mr Boardman suggesting reductions of private car miles by between 10–30 per cent are required.<sup>245</sup> Prof Anable noted a proposed 20 per cent reduction and went on to clarify:

---

235 [Q 88](#) (Chris Boardman), [Q 80](#) (Angela Terry) and written evidence from Green Alliance ([CCE0051](#))

236 Written evidence from the Committee on Climate Change ([CCE0112](#))

237 Written evidence from Climate Outreach ([CCE00111](#)), Midlands Connect ([CCE0075](#)) and Green Alliance ([CCE0051](#))

238 Written evidence from the Committee on Climate Change ([CCE0112](#))

239 [Q 1](#) (David Joffe), [Q 128](#) (Steve Smith), [Q 128](#) (Dr Kris De Meyer), [Q 83](#) (Prof Ken Peattie) and written evidence from the CAST Consortium ([CCE0048](#)), the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)) and the Centre for Research into Energy Demand Solutions ([CCE0069](#))

240 Written evidence from Asthma UK and the British Lung Foundation ([CCE0012](#)), the Humanist Climate Action ([CCE0071](#)) and [Q 87](#) (Stephen Edwards)

241 Written evidence from the CAST Consortium ([CCE0048](#))

242 [Q 85](#) (Prof Jillian Anable)

243 [Q 1](#) (David Joffe), [Q 85](#) (Stephen Edwards), [Q 85](#) (Chris Boardman) and written evidence from Climate Outreach ([CCE0111](#)), Sustrans ([CCE0070](#)), Green Alliance ([CCE0051](#)) and Living Streets ([CCE0110](#))

244 Written evidence from Midlands Connect ([CCE0075](#))

245 [Q 85](#) (Stephen Edwards), [Q 85](#) (Chris Boardman)

“It is an absolute reduction from today’s level, so it is not against an increasing baseline. That is the minimum that a whole variety of models, done in a variety of different ways, at different geographical scales across the country, have come up against. As much as a 50 per cent reduction is found in some models at some geographical scales.”<sup>246</sup>

160. We heard there should also be a focus on the size of cars, with some noting an increase in SUV (sports utility vehicle) sales which has offset climate and environment benefits achieved through other developments.<sup>247</sup> The Aldersgate Group told us: “A lot of the marketing carried out by vehicle manufacturers encourages the purchase of high-performance cars or SUVs, which often results in the sale of less efficient and more material-heavy products.”<sup>248</sup>
161. Some witnesses said other technologies for personal transport should be considered. Hugo Spowers, Founder and Managing Director at riversimple, which is a company developing and offering hydrogen-powered cars on a subscription model, suggested keeping an open mind towards other technologies beyond EVs.<sup>249</sup> Other witnesses told us electric bike use could replace car journeys in some cases with an advantage being the greater distance an e-bike can cover compared to a traditional bicycle.<sup>250</sup>

### *Challenges*

162. Several witnesses welcomed the Government’s commitment to phase-out new petrol and diesel cars by 2030 and said it has helped drive the growing uptake of EVs.<sup>251</sup> There are however several barriers for switching to an EV. More In Common told us: “Both our polling and focus groups have uncovered that the biggest barriers to swapping petrol/diesel cars for electric cars are the high price of cars, the lack of charging points and worries about their reliability.”<sup>252</sup> Others noted the same three issues, though Which? described cost concerns as being related to “upfront costs”.<sup>253</sup> Cost will be a particular barrier for people on low incomes. Sir Patrick Vallance—when expressing the importance of behaviour change to meet climate and environmental goals happening in an equitable way—said: “It is all very well to talk about buying an electric car, but it is totally impossible for the vast majority of the population.”<sup>254</sup>
163. Differences in costs between car travel, flying and public transport often do not incentivise use of less carbon intensive travel modes, though some suggested this is not always the overriding factor behind travel choices. Greater Manchester Combined Authority Health and Social Care Partnership told us: “Public transport can be more expensive than driving (in Greater Manchester at least) and so may not be taken up by lower income groups. Similarly with active travel, the cost of buying a bike may be a barrier.”<sup>255</sup>

246 [QQ 85, 88](#) (Prof Jillian Anable)

247 Written evidence from Cycling UK ([CCE0040](#)), [Q 83](#) (Angela Terry) and [Q 89](#) (Prof Jillian Anable)

248 Written evidence from Aldersgate Group ([CCE0113](#))

249 [Q 83](#) (Hugo Spowers)

250 [Q 111](#) (Tim Lord), [Q 90](#) (Prof Jillian Anable) and written evidence from Cycling UK ([CCE0040](#))

251 [Q 83](#), (Angela Terry), [Q 3](#) (Toby Park) and [Q 120](#) (Tim Lord) and written evidence from Midlands Connect ([CCE0075](#))

252 Written evidence from More in Common ([CCE0050](#))

253 Written evidence from Midlands Connect ([CCE0075](#)) and Which? ([CCE0039](#))

254 [Q 110](#) (Sir Patrick Vallance)

255 Written evidence from Greater Manchester Combined Authority Health and Social Care Partnership ([CCE0109](#))

Angela Terry, Chief Executive Officer of One Home, a consumer awareness platform for clean technology and climate adaptation, made a similar point regarding the price difference between train and plane travel within the UK.<sup>256</sup> Prof Anable agreed that cost can play a role but said it is not always the main factor. She suggested the level of service offered by public transport, including buses, is often the primary issue.<sup>257</sup>

164. Other witnesses suggested the availability of appropriate active travel infrastructure and public transport services are key barriers.<sup>258</sup> Midlands Connect told us the range of factors that influence travel choices includes, “Local infrastructure and how safe it is to walk or cycle and to leave a bike at a train station; through to the reliability and frequency of services” among other things,<sup>259</sup> while UK100 argued: “Making infrastructure and services available is essential to enable behaviour change.”<sup>260</sup> Others criticised the construction of new housing developments without good access to public transport or active travel infrastructure.<sup>261</sup> Public transport services are particularly limited in rural areas, making a shift away from car use more challenging. Sustrans noted, “People living in rural areas [have] a lack of adequate bus services, both routes and frequency,”<sup>262</sup> and others made a similar point.<sup>263</sup>
165. We heard from several witnesses that many people are reluctant to switch to walking and cycling due to safety concerns.<sup>264</sup> Mr Boardman told us: “It should not take bravery to cross the street or ride to school. While it does, we will jump in the car.”<sup>265</sup> Mr Edwards explained that parents are put off walking their children to school by “quite simple things in the environment” including a “lack of decent pedestrian crossings, fear of cars moving at too high speeds in their local streets, fear of too much traffic outside the school gates and cars parked on the pavement”.<sup>266</sup>

### *Possible policy solutions*

166. The Centre for Research into Energy Demand Solutions said grants for EVs were considered to be a fair way for supporting behaviour change by household members they interviewed.<sup>267</sup> Others similarly mentioned grants in the context of travel,<sup>268</sup> and Barbara Pompili, then Minister of the Ecological Transition for the Government of France, described a range of financial support offered by the Government of France for switching to EVs.<sup>269</sup>
167. Some witnesses called for a focus from the Government on improving EV charging infrastructure.<sup>270</sup> Midlands Connect said:

---

256 [Q 83](#) (Angela Terry)

257 [Q 89](#) (Prof Jillian Anable)

258 Written evidence from Asthma UK and the British Lung Foundation ([CCE0012](#))

259 Written evidence from Midlands Connect ([CCE0075](#))

260 Written evidence from UK100 ([CCE0108](#))

261 Written evidence from Sustrans ([CCE0070](#)) and Living Streets ([CCE0110](#))

262 Written evidence from Sustrans ([CCE0070](#))

263 Written evidence from Midlands Connect ([CCE0075](#))

264 [Q 94](#) (Prof Jillian Anable)

265 [Q 86](#) (Chris Boardman)

266 [Q 86](#) (Stephen Edwards)

267 Written evidence from the Centre for Research into Energy Demand Solutions ([CCE0069](#))

268 Written evidence from the CAST Consortium ([CCE0048](#))

269 [Q 23](#) (Barbara Pompili)

270 Written evidence from the University of St Andrews ([CCE0052](#)) and UK100 ([CCE0108](#))

“To ensure that certain geographies and communities are not left behind, for example less affluent and rural areas, it will be important that sustainable commercial arrangements for private operators are available to support these areas. [We] would like to see this issue addressed within the governments infrastructure policies to help local authorities while the market scales.”<sup>271</sup>

168. Regarding aviation, several witnesses suggested a levy on frequent flyers could be used to encourage a reduction in flights.<sup>272</sup> Mr Park said: “I am not suggesting we should penalise the occasional holidaymaker, but about 70 per cent of flights are taken by about 15 per cent of people in the UK. Clearly, there is a skew there. We could disincentivise frequent flying, particularly for business.”<sup>273</sup> Prof Anable went on to explain: “What a frequent-flyer levy involves is everyone effectively having their first flight at a reasonable cost, but for every subsequent flight the per-unit cost of flying gets more and more expensive.”<sup>274</sup> The CAST Consortium noted the policy had the support of Climate Assembly UK.<sup>275</sup>
169. Witnesses referred to a wide range of policy measures that could be used to enable and encourage increased active travel and public transport use or dissuade the use of private vehicles. The former include:
  - (a) Increased funding for active travel infrastructure and public transport services, which witnesses suggested could be delivered through a reprioritisation of funding away from large road and major infrastructure projects as well as new revenue-raising measures which are discussed below.<sup>276</sup> One witness suggested giving greater weight to emissions in the cost-benefit assessment process for transport projects.<sup>277</sup>
  - (b) Improvements to walking and cycling infrastructure, such as improved road layouts, pedestrian crossings, sideroad zebra crossings, segregated cycle lanes, traffic calming measures and better bike storage facilities.<sup>278</sup>
  - (c) Improvements to public transport services, such as expanded services, integration with active travel infrastructure, improved ticketing systems, more accessible stations and the provision of cheaper services.<sup>279</sup>

---

271 Written evidence from Midlands Connect ([CCE0075](#))

272 [Q 128](#) (Steve Smith), written evidence from the Centre for Research into Energy Demand Solutions ([CCE0069](#)) and Green Alliance ([CCE0051](#))

273 [Q 70](#) (Toby Park)

274 [Q 96](#) (Prof Jillian Anable)

275 Written evidence from the CAST Consortium ([CCE0048](#))

276 Written evidence from Cycling UK ([CCE0040](#)), the Local Government Association ([CCE0035](#)), Asthma UK and the British Lung Foundation ([CCE0012](#)), [QQ 85, 96](#) (Stephen Edwards) and [Q 96](#) (Prof Jillian Anable)

277 [Q 97](#) (Chris Boardman)

278 [QQ 89, 94](#) (Chris Boardman), [Q 83](#) (Angela Terry), [Q 96](#) (Stephen Edwards) and written evidence from the IPPR ([CCE0089](#)), Asthma UK and the British Lung Foundation ([CCE0012](#))

279 Written evidence from Midlands Connect ([CCE0075](#)), UK100 ([CCE0108](#)), Asthma UK and the British Lung Foundation ([CCE0012](#)), the Centre for Research into Energy Demand Solutions ([CCE0069](#)), the IPPR ([CCE0089](#)), Cycling UK ([CCE0040](#)), [Q 34](#) (Prof Theresa Marteau), [Q 85](#) (Chris Boardman), [Q 85](#) (Stephen Edwards) and [Q 96](#) (Jillian Anable)

- (d) Revised planning processes which prioritise shorter distances between housing and amenities and active travel infrastructure, and supporting local amenities to reduce the need for longer journeys.<sup>280</sup>
- (e) Investment into behaviour change campaigns and education, though while some witnesses stressed the importance of these activities several others argued that measures like improving infrastructure should be a higher priority.<sup>281</sup>

170. The measures that could dissuade private vehicle use include:

- (a) Changing rules on the use of roads, such as reduced speed limits, school streets, low traffic neighbourhoods and other measures which prioritise access for other road users over private cars. Witnesses said some local government bodies did not have the necessary powers to deliver some of these measures effectively.<sup>282</sup>
- (b) Road pricing, congestion charging, low emission zones, higher parking costs, workplace parking levies and other charges levied for private vehicle use. Some witnesses suggested charges could perform a dual function of disincentivising car use and raising funds for improvements to active travel infrastructure and public transport.<sup>283</sup>

171. More widely, Prof Anable called for the Government to establish an overall car traffic reduction target—similar to that adopted by the Scottish Government of a 20 per cent reduction by 2030—and to develop a delivery plan against this.<sup>284</sup> Ms Berge explained that the Scottish Government published in January 2022 a “route map to reduce car use by a fifth by 2030 (against a 2019 baseline)”,<sup>285</sup> which includes a commitment to spend 10 per cent of the transport budget annually on active travel from 2024–25.<sup>286</sup>

### *Government position*

172. In his evidence to the Committee, Mr Hands referred to the Government’s commitment to phase out new petrol and diesel cars by 2030,<sup>287</sup> while Andrew Jackson, Deputy Director of 25 Year Environment Strategy Team for Defra, said: “Look also in transport at the decarbonisation that we have had and *The Road to Zero Strategy*, where we have made electric vehicles more affordable. The uptake of electric vehicles through grant schemes starts to then trickle down into second-hand markets. That again facilitates choice for the customer.”<sup>288</sup> In relation to EV charging infrastructure, Mr Hands told us:

280 [Q 96](#) (Stephen Edwards), [Q 90](#) (Prof Jillian Anable), written evidence from the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)), Living Streets ([CCE0110](#)) and the Local Government Association ([CCE0035](#))

281 Written evidence from Living Streets ([CCE0110](#)), Asthma UK and the British Lung Foundation ([CCE0012](#)), the CAST Consortium ([CCE0048](#)), and [Q 96](#) (Stephen Edwards)

282 Written evidence from the CAST Consortium ([CCE0048](#)) and the Centre for Research into Energy Demand Solutions ([CCE0069](#)) and [QQ 91, 92](#) (Chris Boardman), [Q 96](#) (Prof Jillian Anable)

283 Written evidence from the CAST Consortium ([CCE0048](#)), the Centre for Research into Energy Demand Solutions ([CCE0069](#)), Cycling UK ([CCE0040](#)), the Local Government Association ([CCE0035](#)), the IPPR ([CCE0089](#)) and [Q 89](#) (Chris Boardman), [Q 96](#) (Stephen Edwards) and [Q 96](#) (Prof Jillian Anable)

284 [QQ 96–97](#) (Prof Jillian Anable)

285 Written evidence from the Scottish Government ([CCE0080](#))

286 *Ibid.*

287 [Q 148](#) (Greg Hands MP)

288 [Q 133](#) (Andrew Jackson)

“In terms of bringing down the price, again the Government are investing quite a bit of money. We have invested £1.6 billion since 2020 to support charging infrastructure, £500 million to support local charging provision through local authorities and £950 million to support rapid charging on motorways. That is not going to provide an electric vehicle charging point for everybody in every part of the country, but we want to get enough in to move forward the EV charging network across the country.”<sup>289</sup>

173. On 14 June 2022 the Government announced it was closing the plug-in grant scheme for electric cars and would refocus funding on public charging and supporting the purchase of other vehicle types (e.g., electric vans).<sup>290</sup> The car element of the plug-in grant scheme had aimed to reduce the price difference between new low/zero emissions cars and internal combustion engine-powered cars.<sup>291</sup>

174. Regarding government policy on aviation, Mr Hands told us:

“We do not have a policy of introducing some kind of cap on aviation ... In last year’s transport decarbonisation plan, the Department for Transport outlined various ways in which we are decarbonising the aviation industry. A lot of it will be through the use of hydrogen or alternative fuels or by providing alternatives to aviation, such as HS2.”<sup>292</sup>

175. The Government recently published its *Jet Zero Strategy*, which puts forward measures intended to improve efficiency and support the development of sustainable aviation fuels.<sup>293</sup> The main behaviour change policy in the strategy is to “preserve the ability for people to fly whilst supporting consumers to make sustainable aviation travel choices”.<sup>294</sup> In the Strategy, the Government commits to publishing a call for evidence on a proposal to provide consumers with environmental information at the time of booking in autumn 2022, working with the Civil Aviation Authority.<sup>295</sup>

176. On the wider shift to active travel and public transport, the Department for Transport (DfT) told us:

“We do not believe that zero emission cars and lorries alone will be sufficient in meeting our climate targets or wider environmental goals. The reduction of tailpipe emissions from private and commercial road vehicles must be complemented by an increase in the share of trips taken by public transport, cycling and walking—which will require people to change some of their journeys. This will be supported by better public transport networks and better cycling and walking infrastructure.”<sup>296</sup>

---

289 Q 149 (Greg Hands MP)

290 DfT, ‘Plug-in grant for cars to end as focus moves to improving electric vehicle charging’ (14 June 2022): <https://www.gov.uk/government/news/plug-in-grant-for-cars-to-end-as-focus-moves-to-improving-electric-vehicle-charging> [accessed 15 September 2022]

291 Frontier economics, *An evaluation of the Plug-in Vehicle Grant, Electric Vehicle Homecharge Scheme, and Workplace Charging Scheme* (6 May 2022), p 9: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1082401/ozev-portfolio-level-retrospective-evaluation.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1082401/ozev-portfolio-level-retrospective-evaluation.pdf) [accessed 15 September 2022]

292 Q 153 (Greg Hands MP)

293 DfT, *Jet Zero Strategy* (19 July 2021): [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1095952/jet-zero-strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1095952/jet-zero-strategy.pdf) [accessed 15 September 2022]

294 *Ibid.*, p 51

295 *Ibid.*, p 53

296 Written evidence from the DfT (CCE0062)

177. DfT went on to set out the Government's key commitments and policies including:
- funding for active travel infrastructure and local public transport systems;
  - an ambition for half of all journeys in towns and cities to be cycled or walked by 2030;
  - support for the delivery of zero emission buses and coaches; and
  - the creation of the new Great British Railways body, which is intended to improve the performance of rail services.<sup>297</sup>
178. **Transport, including personal travel, makes the largest contribution to emissions. We welcome the Government's focus on the rollout of low-emissions vehicles—including through phasing out the sale of new petrol and diesel cars—and its efforts to improve active travel infrastructure and local public transport systems. It is critical that these efforts deliver easier, safer and more accessible walking and cycling routes and remove barriers to public transport use if we are to achieve the behaviour change in travel needed to meet the UK's climate and environmental goals.**
179. *The Government must deliver on its ambition to improve active travel infrastructure and local public transport systems by providing the necessary resources and supporting local government bodies to implement projects on the ground. The upcoming Transport and Levelling-Up and Regeneration Bills should be used to ensure local government bodies have the necessary powers to prioritise active travel and local public transport—including in new developments. The cost-benefit assessment process for transport projects should be revised to give greater weight to reducing emissions.*
180. **The Government's failure to acknowledge the need for a reduction in long-haul flights is misplaced given the meaningful contribution this could make to emissions reductions as well as the public's support for a fair measure that would help to secure this.**
181. *The Government should launch a call for evidence on introducing a frequent flyer levy applied to long-haul flights. We note that, by design, proposed frequent flyer levies only affect the minority of the population who take flights much more often than the average individual or family.*

## Food

### Why

182. Dietary change and the reduction of food waste are together the seventh top action in the CCC's ranking of measures which can deliver emissions reductions and require some consumer engagement.<sup>298</sup> As noted in Chapter 2, the food system is also associated with biodiversity losses, water pollution and water scarcity.<sup>299</sup> We focus specifically on dietary change in this chapter.

297 Written evidence from the DfT ([CCE0062](#))

298 Written evidence from the Committee on Climate Change (CCC) ([CCE0112](#))

299 [Q 98](#) (Henry Dimbleby)

183. As with other chapters, we are concerned with behaviour change in a UK context. The changes discussed here are in relation to average UK diets. Nutritional considerations and the climate and environmental impacts of diets differ significantly globally.

184. Witnesses highlighted emissions arising from the food system and meat and dairy production in particular.<sup>300</sup> Ewa Kmietowicz, Mitigation Team Leader at the CCC, told us:

“Meat and dairy are by far the most carbon-intensive food products. Not only do they cause a lot of direct emissions in their production but they use a lot of land. That means that the opportunity cost of using land is high for those products, land that could be used for other purposes, such as carbon sequestration, regeneration and biodiversity.”<sup>301</sup>

The Soil Association added, “The global food system is responsible for approximately 33 per cent of greenhouse gas emissions,” and referred to deforestation and land degradation associated with the production of ingredients such as soya, palm oil and sugar which are used in highly processed products.<sup>302</sup>

185. Dietary change can also deliver health benefits, which a number of witnesses noted.<sup>303</sup>

186. In its submission to the Committee, the Department of Health and Social Care (DHSC) agreed that shifting diets to align with the Eatwell Guide public health guidelines—including reduced red meat consumption and increased consumption of beans and pulses—would deliver benefits across these areas:

“Adherence to the Eatwell Guide has been shown to improve both health and environmental outcomes (Scheelbeek et al 2020), with appreciably lower environmental impact than the current UK diet (Carbon Trust 2016) and up to 7 per cent reduction in mortality and 30 per cent reduction in greenhouse gas emissions (Scheelbeek et al 2020). ... Improvements in population dietary intakes in line with the Eatwell Guide would go a significant way to meeting sustainability targets.”<sup>304</sup>

### *What*

187. While one witness suggested policy measures used “to create a shift to sustainable diets with less or no meat and dairy products would be appropriate”,<sup>305</sup> several others pointed to the benefits that could be realised from a partial reduction per person from current levels and did not propose that people stop eating meat and dairy completely. Mr Dimpleby told us, “If you were to boil down the one thing that consumers could do to minimise the environmental impact of the food they eat, it would be to eat less

---

300 Written evidence from Lorna Benton, Naomi Fallon, Paula Feehan and Alicia Walker (CCE0046), the Humane Society International (CCE0057), World Animal Protection (CCE0041) and Paula Feehan (CCE0026)

301 Q 1 (Ewa Kmietowicz)

302 Written evidence from the Soil Association (CCE0014)

303 Q 3 (David Joffe), see also written evidence from the Humane Society International (CCE0057) and Paula Feehan (CCE0026)

304 Written evidence from DHSC (CCE0061)

305 Written evidence from the Humanist Climate Action (CCE0071)

meat,”<sup>306</sup> and Prof Lang agreed.<sup>307</sup> Several other witnesses referred to the Dimbleby-authored National Food Strategy’s recommendation of reducing meat consumption by 20 per cent over ten years,<sup>308</sup> while, with reference to meat and dairy, Ms Kmietowicz said: “Our central pathway—or our balanced pathway, as we call it—to net zero has quite a significant shift in diet change from where we are now to a reduction of around 35 per cent by 2050.”<sup>309</sup> Others said a reduction in meat and dairy consumption should be complemented by eating more vegetables and plant proteins.<sup>310</sup>

188. Along with eating less meat and dairy, witnesses called for a switch to meat, dairy and other foods produced through sustainable farming methods.<sup>311</sup> World Animal Protection said:

“Switching to a more plant-based diet has been identified as the single biggest way to reduce our environmental impact on the planet. This does not require a full switch to [a] vegan diet but a reduction in the most resource intensive animal products such as those factory-farmed (predominantly chicken, pork and dairy in the UK). These farms require imports of feed associated with large scale deforestation such as soy and oil palm.”<sup>312</sup>

Prof Lang said similarly: “How the meat is grown is a critical issue.”<sup>313</sup>

### *Challenges*

189. There are several challenges to shifting diets at systemic and individual levels.
190. Mr Dimbleby argued that factors beyond individual-level choices are key and referred to an interaction “between the commercial incentives of food companies and our evolved appetite”.<sup>314</sup> He told us: “No amount of nudging, of trying to persuade people, of changing culture will stop the disaster that is awaiting the NHS and many of our lives, unless the Government intervene directly in that commercial incentive.”<sup>315</sup> Mr Dimbleby added that currently “nature is invisible” in the measures of success for the food system, such as company balance sheets, and suggested: “Until you make the cost of nature visible in the price of food you will not change the public’s behaviour.”<sup>316</sup> He also told us the Government would face “a lot of lobbying” if it attempted to

306 Q 101 (Henry Dimbleby)

307 Q 103 (Prof Tim Lang)

308 Written evidence from Lorna Benton, Naomi Fallon, Paula Feehan and Alicia Walker (CCE0046), the Humane Society International (CCE0057), and Paula Feehan (CCE0026). For the original recommendation see The National Food Strategy, *The Plan* (July 2021), p 11: [https://www.nationalfoodstrategy.org/wp-content/uploads/2021/10/25585\\_1669\\_NFS\\_The\\_Plan\\_July21\\_S12\\_New-1.pdf](https://www.nationalfoodstrategy.org/wp-content/uploads/2021/10/25585_1669_NFS_The_Plan_July21_S12_New-1.pdf) [accessed 15 September 2022].

309 Q 1 (Ewa Kmietowicz). The CCC’s Balanced Pathway forms the basis of the Sixth Carbon Budget advice. The Balanced Pathway is informed by insights from multiple scenarios explored by the CCC and makes “moderate assumptions on behavioural change and innovation”. For more information see Committee on Climate Change, *The Sixth Carbon Budget: The UK’s path to Net Zero* (December 2020), p 24: <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf> [accessed 7 June 2022].

310 Written evidence from the Soil Association (CCE0014), Green Alliance (CCE0051), the CAST Consortium (CCE0048)

311 Written evidence from the Soil Association (CCE0014)

312 Written evidence from World Animal Protection (CCE0041)

313 Q 105 (Prof Tim Lang)

314 Q 98 (Henry Dimbleby)

315 *Ibid.*

316 *Ibid.*

introduce measures like the sugar and salt tax he proposed in his National Food Strategy, and said the complexity of the food system makes such “bold” measures warranted, while at the same time means their impacts are hard to fully predict.<sup>317</sup> Prof Lang agreed that the complexity of the food system represents a challenge which necessitates “boldness”.<sup>318</sup>

191. Access to information and a lack of awareness of the impacts of the food system were singled out as a barrier to change. The IPPR, who conducted citizens’ juries and other deliberative exercises as part of their Environmental Justice Commission, told us: “We [ ... ] heard from our juries that many people feel they lack the information to know which foods are most environmentally friendly. For many jurors, our sessions with them were the first time they had considered the relationship between what they eat and the climate and nature crises.”<sup>319</sup> Ms Terry also noted a lack of public awareness of the carbon footprints of different food products.<sup>320</sup>
192. As with travel, IGD explained that cost is reported to be a challenge by consumers with 37 per cent “perceiving healthy, sustainable eating to be more expensive”.<sup>321</sup> Meanwhile IPPR argued that supporting behaviour change in food relies upon addressing food poverty and wider social inequalities at the same time.<sup>322</sup>
193. We heard that culture and social norms influence food choices. More in Common explained that people often see meat eating as part of their culture and lifestyle and Prof Lang similarly suggested culture plays a role.<sup>323</sup> Trewin Restorick, Chief Executive of Hubbub, told us his charity’s research had found “meat and masculinity is a really strong connector and there is a perception that if you eat meat, you are stronger”.<sup>324</sup>
194. Some witnesses emphasised that multiple factors inform individual food choices.<sup>325</sup> Mr Hand referred to price, ease, social norms, functionality, values and habits, and added: “The myriad factors that work for consumer choice are different for different people ... They are all working against a counterforce of anchoring. People are very reluctant to change their minds, especially because there is always a risk in change.”<sup>326</sup>

### *Possible policy solutions*

195. Several witnesses made the overarching point that a range of interventions will be needed to support a shift to diets with reduced emissions and environmental impacts.<sup>327</sup> Prof Lang told us: “We will have to have multiple interventions, at ... multiple level[s], with multiple actors, to address that big population scale.”<sup>328</sup>

---

317 [Q 99](#) (Henry Dimbleby)

318 [Q 99](#) (Prof Tim Lang)

319 Written evidence from the IPPR ([CCE0089](#))

320 [Q 81](#) (Angela Terry)

321 Written evidence from the Institute of Grocery Distribution ([CCE0099](#))

322 Written evidence from the IPPR ([CCE0089](#))

323 [Q 98](#) (Prof Tim Lang)

324 [Q 82](#) (Trewin Restorick)

325 Written evidence from the Institute of Grocery Distribution ([CCE0099](#)) and World Animal Protection ([CCE0041](#))

326 [Q 98](#) (James Hand)

327 [Q 1](#) (Ewa Kmietowicz) and written evidence from Which? ([CCE0039](#)), Paula Feehan ([CCE0026](#)) and the Humanist Climate Action ([CCE0071](#))

328 [Q 98](#) (Prof Tim Lang)

196. Policy measures can be used to increase the availability and affordability of food produce with lower climate and environmental impacts. Prof Dame Marteau argued:

“The two major sets of interventions concern both availability—we need to shift the foods that are available in this context—and affordability, which means that the sustainable foods need to be cheaper than the unsustainable ones. There is a role not only for businesses but for government to look at subsidies.”<sup>329</sup>

Mr Dimbleby similarly discussed “making what is available more environmentally friendly” and mentioned the shift in farm support to the Environmental Land Management Schemes (ELMS) as a route for doing so.<sup>330</sup> Others called for sustainable farming methods to be incentivised and for stronger regulation of food production,<sup>331</sup> while Tesco said a lack of readily available incentive schemes for UK farmers is a barrier.<sup>332</sup> Some witnesses told us these measures need to be accompanied by a revised trade policy to ensure the import of products produced to lower climate and environmental standards does not undermine progress made domestically.<sup>333</sup>

197. A better integration of climate and environmental impacts in public health guidelines on diet—especially the Eatwell Guide (formerly known as the Eatwell Plate)—and wider use of these guidelines could help shift diets. Prof Lang told us: “We have to get a grip of the Eatwell Plate. It is nutrition, it is dietary guidelines; it is not sustainable dietary guidelines ... The country needs sustainable dietary guidelines.”<sup>334</sup> Others agreed.<sup>335</sup> Prof Lang added that currently the guidelines are “toothless”, but said a “common, coherent set of guidelines” should be applied to public procurement and could also be used for other purposes, such as informing the development of digital tools on sustainability by the private sector.<sup>336</sup>
198. More widely, many witnesses supported the application of sustainability requirements to public procurement to shift procurement practices and increase the availability of sustainable options on menus in public institutions,<sup>337</sup> though some cautioned against relying on this alone. The Soil Association noted the National Food Strategy’s recommendations with this objective—including updating Government Buying Standards for Food and introducing a mandatory accreditation scheme for public institutions—and said: “If all meals served were healthy and sustainable this can go a long way to normalise climate friendly diets, such as increasing vegetable consumption and providing more meat-free options.”<sup>338</sup> Prof Lang noted that while “public procurement is quite important ... Most food is eaten

---

329 [Q 38](#) (Prof Theresa Marteau)

330 [QQ 101, 102, 106](#) (Henry Dimbleby)

331 Written evidence from World Animal Protection ([CCE0041](#)) and the Greater Manchester Directors of Public Health ([CCE0097](#))

332 Written evidence from Tesco PLC ([CCE0106](#))

333 [QQ 101, 102, 106](#) (Henry Dimbleby) and written evidence from Which? ([CCE0039](#))

334 [Q 101](#) (Prof Tim Lang)

335 Written evidence from Paula Feehan ([CCE0026](#))

336 [QQ 101–102](#) (Prof Tim Lang)

337 Written evidence from Compass Group UK & Ireland ([CCE0084](#)), Aldersgate Group ([CCE0113](#)), the Humane Society International ([CCE0057](#)), Paula Feehan ([CCE0026](#)) and the CAST Consortium ([CCE0048](#)) also [Q 1](#) (Toby Park), [Q 34](#) (Prof Theresa Marteau) [Q 24](#) (Barbara Pompili) and [Q 55](#) (Secretary-General Paula Lehtomäki).

338 Written evidence from the Soil Association ([CCE0014](#))

through private commercial relationships. I am part of a team that is calling for sustainable dietary guidelines to be applied everywhere.”<sup>339</sup>

199. Witnesses put forward arguments in support of, and against, introducing a tax on emissions (a ‘carbon tax’), which would include meat. The CAST Consortium said a tax on red meat, like the sugar tax (or ‘Soft Drinks Industry Levy’<sup>340</sup>), could be considered,<sup>341</sup> as did others.<sup>342</sup> Prof Lang said taxation can be effective but noted “how and what sort of meat needs to be thought through” and added that the relevant metrics would need to be in place.<sup>343</sup> Mr Dimbleby agreed that “tax works”, but said, “I do not think it is the right time,” due to the regressive effects such a tax could have and the complexities of accounting for emissions accurately.<sup>344</sup>
200. Some witnesses proposed measures to increase the public awareness of climate and environmental impacts of food including through public engagement and labelling.<sup>345</sup> Prof Lang argued the UK needs to “set ourselves goals as a country for reducing the carbon footprint of the food system, and do it systematically, and engage people in that”,<sup>346</sup> while the IPPR—drawing on deliberative exercises they had conducted—told us: “Jurors saw the potential for schools to empower children and young people to eat healthier and more seasonal food, throughout their lives, by providing hands on experience of how food is grown and prepared.”<sup>347</sup> Students on the Committee’s youth engagement programme were broadly supportive of increasing awareness through consistent labelling about the carbon emissions associated with the production of food products.<sup>348</sup> We discuss witnesses’ views on labelling of food and other products later in this chapter.
201. Improved, accessible and comparable data is needed to underpin policy measures, such as those outlined above. Mr Dimbleby argued, “We need the national food system data programme,”<sup>349</sup> which he proposed in the National Food Strategy. He suggested, “There is in some parts of government—our Chief Scientific Officer and in the ONS—an understanding that across the board, in all sorts of fields, setting the data free in an easily consumable way would be enormously powerful,” and he outlined steps that could be taken to map, improve, and make accessible, data.<sup>350</sup> Mr Hand called for the standardisation of data variables used for carbon accounting—which he said is a large task—and suggested the quicker they are, “The more people can innovate and come up with some good solutions to help people cut their

---

339 [Q 101](#) (Prof Tim Lang)

340 HM Treasury, ‘Soft Drinks Industry Levy comes into effect’ (5 April 2018): <https://www.gov.uk/government/news/soft-drinks-industry-levy-comes-into-effect> [accessed 15 September 2022]

341 Written evidence from the CAST Consortium ([CCE0048](#))

342 [Q 1](#) (Toby Park) and written evidence from Paula Feehan ([CCE0026](#))

343 [Q 105](#) (Prof Tim Lang)

344 [Q 105](#) (Henry Dimbleby)

345 Written evidence from Lorna Benton, Naomi Fallon, Paula Feehan and Alicia Walker ([CCE0046](#))

346 [Q 106](#) (Prof Tim Lang)

347 Written evidence from the IPPR ([CCE0089](#))

348 A high-level summary of the discussion we had with students on the Committee’s youth engagement programme is annexed to this report.

349 [Q 106](#) (Henry Dimbleby). The National Food Strategy, *The Plan* (July 2021), p 160: [https://www.nationalfoodstrategy.org/wp-content/uploads/2021/10/25585\\_1669\\_NFS\\_The\\_Plan\\_July21\\_S12\\_New-1.pdf](https://www.nationalfoodstrategy.org/wp-content/uploads/2021/10/25585_1669_NFS_The_Plan_July21_S12_New-1.pdf) [accessed 15 September 2022]

350 [Q 101](#) (Henry Dimbleby)

footprints.”<sup>351</sup> Meanwhile, Tesco suggested insufficient consideration was being given to the data needed to populate produce labelling.<sup>352</sup>

### *Government position*

202. In its submission to the Committee, Defra referred to the transition to ELMS as one of several actions underway to support changes in practice and lifestyle across the department’s remit.<sup>353</sup> The submission also referred to ongoing work on food labelling and the department’s support of an industry-led greenhouse gas action plan involving food sector trade bodies.<sup>354</sup>

203. The Rt Hon George Eustice MP, then Secretary of State for Defra, told us:

“The Government are very explicit in saying that, from an environmental perspective, we are not telling people that they should not eat meat ... Beyond the Eatwell Guide, which is very much from a health perspective and recognises that meat protein is part of a healthy diet that should be eaten in moderation, we do not have any messages to the public about meat consumption from a food production angle.”<sup>355</sup>

204. When asked about how the Government was reducing barriers to behaviour change, Mr Eustice referred to regulatory change “so that the things on offer to the public in retail environments change”, and to reorientating farm support policies to incentivise biodiversity improvements and lower carbon emissions.<sup>356</sup>

205. The Government food strategy, the Government’s response to the Dimbleby-authored National Food Strategy, was published on 13 June 2022. In the strategy the Government committed to:

- undertake a programme of randomised control trials to develop a suite of interventions to encourage and enable healthier and more sustainable diets,<sup>357</sup>
- deliver a Food Data Transparency Partnership, and as part of this:
  - look at developing consistent and defined metrics to measure the health, environmental sustainability and animal welfare impacts of food,<sup>358</sup>
  - consult on requiring companies to report publicly against health metrics and explore a similar approach to sustainability and animal welfare; and<sup>359</sup>

---

351 [Q 101](#) (James Hand)

352 Written evidence from Tesco PLC ([CCE0106](#))

353 Written evidence from Defra ([CCE0068](#)). At the time of writing, there have been press reports suggesting the Government is reviewing ELMS, however there has not been an official announcement about a change of policy.

354 *Ibid.*

355 [Q 145](#) (George Eustice MP)

356 [Q 133](#) (George Eustice MP)

357 Secretary of State for Environment, Food and Rural Affairs, *Government food strategy* (June 2022), p 11: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1082026/government-food-strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1082026/government-food-strategy.pdf) [accessed 15 September 2022]

358 *Ibid.*, p 25

359 *Ibid.*, pp 25–26

- develop a mandatory methodology for those producing eco labels or making claims about product sustainability.<sup>360</sup>
  - consult on widening the scope of Government Buying Standards for Food and Catering Services (GBSF) to be mandatory across the whole public sector, introducing a target that at least 50 per cent of food spend must be on food produced locally or certified to higher environmental standards, and requiring public sector organisations to report on the food they buy, serve and waste.<sup>361</sup>
206. As discussed above, DHSC noted in its submission that aligning diets with the current Eatwell Guide would reduce climate and environmental impacts and deliver health benefits.<sup>362</sup>
207. **Given the emissions reductions and environmental improvements that could be achieved through partially reducing meat and dairy consumption, we are disappointed that the Net Zero Strategy neglected to mention the climate and environmental benefits of dietary change and the Government food strategy failed to put forward a related target.**
208. **Alongside a partial reduction in meat and dairy consumption, a shift towards certain types of meat, including pasture fed meat, dairy and other foods produced by sustainable production methods would contribute to achieving climate and environmental goals. Systematic interventions are needed to increase the availability and uptake of food with lower climate and environmental impacts.**
209. **We welcome the Government's commitments in the Government food strategy to consult on making GBSF mandatory across the public sector and on introducing a target for at least 50 per cent of food spend to be on food produced locally or certified to higher environmental standards.**
210. *The Government should seek to increase the availability of food with lower climate and environmental impacts by:*
- (a) *Delivering on its commitment to develop a system of agricultural support—via an effective and expedited rollout of ELMS and other environmental schemes—which supports farmers and land managers to reduce emissions and enhance the natural environment.*
  - (b) *Negotiating trade deals which ensure imported food products placed on the Great Britain market meet the same climate and environmental standards required of domestic producers.*
  - (c) *Utilising public health policy tools, including updating the Eatwell Guide to reflect a diet that is compatible with the UK's long-term climate and environmental goals and aligning with this the GBSF, which we support making mandatory across the public sector.*

---

360 *Ibid.*, p 26

361 *Ibid.*, pp 11 and 27

362 Written evidence from DHSC (CCE0061)

211. **There is limited public awareness of the emissions and environmental impacts of different types of food—including more and less sustainable meat and dairy production methods—not least because information is largely unavailable or inaccessible to consumers. In light of this, we welcome the Government’s commitments in the Government food strategy to launch a Food Data Transparency Programme, including a proposed mandatory methodology for eco labels and sustainability claims.**
212. *The Government should seek to make information regarding the environmental impacts of different food products more accessible by:*
- (a) *Taking steps to ensure that public communications and information on diets convey the range of health, climate and environment benefits that dietary change—including meat and dairy consumption in line with an updated Eatwell Guide—can achieve.*
  - (b) *Implementing the Food Data Transparency Programme and public sustainability reporting by companies in the food sector in a timely manner.*
  - (c) *Urgently consulting on the mandatory methodology for eco labels and sustainability claims, which we go on to discuss further later in this chapter.*
213. **While taxes are often effective at changing behaviour and it may ultimately be necessary to use taxes in this area, it is not the right moment to introduce a tax on emissions associated with household products like food. Such a tax could be regressive—impacting on lower income households more severely during a cost-of-living crisis—and could undermine public support for the UK’s climate and environmental goals. When future governments consider such a measure, eliminating regressive impacts through policy design should be a priority.**

### Energy use at home

#### *Why*

214. Changing how we heat and use energy at home can deliver meaningful emissions reductions. Green Alliance, citing the CCC’s figure for direct building emissions which mainly consist of fossil fuel use for heating,<sup>363</sup> explained: “Buildings account for about 17 per cent of the UK’s CO<sub>2</sub> emissions.”<sup>364</sup> The CCC attributes 77 per cent of direct building emissions to homes, with the remainder arising from commercial and public buildings.<sup>365</sup> The adoption of heat pumps in owner occupied homes and new residential buildings are two of the top 20 actions identified by the CCC as

---

363 The CCC separately estimate indirect building emissions which include the emissions from the generation of electricity consumed in buildings. Climate Change Committee, *The Sixth Carbon Budget, Buildings* (9 December 2020), p 6: <https://www.theccc.org.uk/wp-content/uploads/2020/12/Sector-summary-Buildings.pdf> [accessed 15 September 2022]

364 Written evidence from Green Alliance (CCE0051)

365 Climate Change Committee, *The Sixth Carbon Budget, Buildings*, p 6

delivering emissions reductions and requiring some consumer engagement.<sup>366</sup> Energy use in buildings can also be reduced by improving energy efficiency.<sup>367</sup>

215. Witnesses highlighted other benefits associated with changing how we use energy at home. Mr Lord explained: “When we think about ... energy efficiency, the co-benefits are lower bills, improved energy security, reduced import dependence, warmer homes, jobs in local areas and so on.”<sup>368</sup> Others noted that premature deaths associated with cold homes could be avoided through better insulated homes and told us that reduced energy bills, due to improved energy efficiency, would additionally help alleviate fuel poverty.<sup>369</sup> We heard that installations of heat pumps, insulation and small-scale energy generation like rooftop solar could generate new jobs.<sup>370</sup>

### *What*

216. Installing energy efficiency measures—including insulation—and adopting heat pumps were identified as key priorities. David Joffe, Head of Carbon Budgets at the CCC, told us: “The buildings sector will be hard to decarbonise. Two aspects of behaviour change are important there. One is getting people to insulate their homes better ... Then there is also the technology side ... Adopting heat pumps, for example, would be crucial there.”<sup>371</sup> Others similarly referred to improving insulation and installing heat pumps,<sup>372</sup> while Mr Park noted that properties also need to be insulated to a certain level of energy efficiency for heat pumps to be effective.<sup>373</sup>
217. While this chapter focuses mainly on heat pump adoption—as opposed to other low-carbon heating technologies—because of the proportion of emissions reductions they could deliver, the CCC’s Sixth Carbon Budget foresees roles for multiple technologies as heat pumps will not be suitable for a significant minority of households.<sup>374</sup> Relatedly, Mr Park highlighted that clarity is needed on local plans for low-carbon heating—including the rollout of heat networks—to enable households to make appropriate decisions about new heating systems.<sup>375</sup>
218. Witnesses also pointed to benefits that could be achieved by increasing small-scale energy generation like rooftop solar.<sup>376</sup>

### *Challenges*

219. The costs of energy efficiency measures and heat pumps are one of the main barriers to their wider uptake. IPPR described “overcoming upfront costs” as one of the major challenges for changing how we heat our homes and

---

366 Written evidence from the Committee on Climate Change (CCC) ([CCE0112](#))

367 Written evidence from the Energy Saving Trust ([CCE0047](#))

368 [Q 110](#) (Tim Lord)

369 Written evidence from Green Alliance ([CCE0051](#)) and the IPPR ([CCE0089](#))

370 Written evidence from the IPPR ([CCE0089](#)) and the CAST Consortium ([CCE0048](#))

371 [Q 1](#) (David Joffe)

372 Written evidence from the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)), the IPPR ([CCE0089](#)) and Green Alliance ([CCE0051](#))

373 [Q 1](#) (Toby Park)

374 Climate Change Committee, *The Sixth Carbon Budget, The UK’s path to Net Zero* (9 December 2020), p 115: <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf> [accessed 15 September 2022]

375 [Q 3](#) (Toby Park)

376 Written evidence from the CAST Consortium ([CCE0048](#)), the District Councils’ Network ([CCE0107](#)) and Dr Viktoria Spaier and Prof Cristina Leston-Bandeira ([CCE0016](#))

other witnesses similarly noted costs as a barrier.<sup>377</sup> Mr Lord said that while the cost of heat pumps is coming down, “We still have some way to go,”<sup>378</sup> and noted that the ability of different groups in the population to afford new low-carbon technologies like heat pumps varies.<sup>379</sup>

220. Mr Park told us the complexity of installing a heat pump, which as noted above also requires improving insulation in some cases, is another challenge:

“Heat pump adoption ... is such a complicated process behaviourally compared with getting a like-for-like boiler replacement. If your boiler breaks down—and they tend to break down in the winter when you need heating—you can get a new boiler in a couple of days if you need to. Heat pumps could take many weeks ... This is not a frictionless behavioural adoption curve and it needs to be.”<sup>380</sup>

221. Others said there is a lack of public understanding regarding how to adopt these measures and of information and advice to help households through the process.<sup>381</sup> Which? argued there is “low knowledge of the extent of home heating’s contribution to household emissions and confusion over where to go for advice and guidance”.<sup>382</sup> The Energy Saving Trust, which provides an advice service in Scotland, told us: “A key issue is that there is currently no comparable advice available for people across England, which is a barrier to taking swifter action to [meet] the UK’s 2050 net zero targets.”<sup>383</sup>
222. Witnesses referred to multiple issues in the policy design of the Government’s Green Deal and Green Homes Grant energy efficiency support schemes.<sup>384</sup> Mr Park told us the schemes’ failings had behavioural aspects, including their complexity—which meant suppliers did not want to register—and the incentives were not “thought through in quite enough detail to realise that they are not as appealing to consumers as they should be”.<sup>385</sup> Paul Ellis, Chief Executive at the Ecology Building Society, noted: “Every time one of these programmes fails, confidence is reduced, which is a big problem.”<sup>386</sup>
223. Witnesses also referred to issues related to buildings standards. Ms Terry told us higher energy efficiency standards were dropped in the past—due to pressure from housing developers—and the less efficient homes now being built will need to be retrofitted in future at greater cost.<sup>387</sup> Mr Paul Ellis said that despite incremental improvements in building standards, there is an absence of monitoring to ensure compliance which limits their effectiveness.<sup>388</sup>

---

377 Written evidence from the IPPR ([CCE0089](#)), Which? ([CCE0039](#)), South Cambridgeshire District Council ([CCE0105](#)) and the Energy Saving Trust ([CCE0047](#))

378 [Q 119](#) (Tim Lord)

379 *Ibid.*

380 [Q 1](#) (Toby Park)

381 Written evidence from the IPPR ([CCE0089](#)) and More in Common ([CCE0050](#))

382 Written evidence from Which? ([CCE0039](#))

383 Written evidence from the Energy Saving Trust ([CCE0047](#))

384 The Green Deal scheme which ran from 2013 to 2015 provided loans to households to improve the energy efficiency of the home. The Green Homes Grant scheme was open from 2020 to 2021 and provided vouchers towards the cost of installing home energy efficiency measures. Written evidence from the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#)) and One Home ([CCE0045](#)) also [Q 76](#) (Trewin Restorick).

385 [Q 2](#) (Toby Park)

386 [Q 80](#) (Paul Ellis)

387 [Q 76](#) (Angela Terry)

388 [Q 80](#) (Paul Ellis)

*Possible policy solutions*

224. Subsidies and other financial incentives can be used to increase the uptake of energy efficiency measures, heat pumps and other low-carbon heating technologies.<sup>389</sup> Mr Park told us: “Big subsidies are, unfortunately, necessary and so that is the right approach.”<sup>390</sup> The Aldersgate Group said other policy measures “should be accompanied by grants / public funding to support vulnerable households in rolling [out] energy efficiency and low carbon heat measures and fiscal incentives for ‘able to pay’ households”.<sup>391</sup> Greater Manchester Combined Authority Health and Social Care Partnership added:

“For lower income residents to invest in retrofitting, policies will be needed to subsidise this to avoid a widening gap between higher and lower income groups. Without such policies, lower income households will continue to spend more on utilities, with bills dropping for more affluent groups who can afford to retrofit.”<sup>392</sup>

225. We heard that the complex process of installing a heat pump and energy efficiency measures should be simplified, including through better provision of information and support. Mr Lord suggested tailored information should be made available to interested households to help them understand “where the biggest impacts are in their homes, what energy efficiency measures might be cost-effective, what low-carbon heating solution might work for them, and where they can access financial support to deliver that”.<sup>393</sup> On installing a heat pump, Mr Park said, “Let us ... try to make that process of adoption absolutely as simple as it possibly can be,”<sup>394</sup> and Ms Pompili described a scheme with this objective introduced by the Government of France:

“With our programme called MaPrimeRénov we simplified the system, and at the end many more people were able to make repairs in their home. From January, a dedicated professional will help households that so desire to make an analysis of their needs, help them to find adequate financing schemes and even find craftsmen able to do the work.”<sup>395</sup>

226. The Energy Saving Trust told us about their ‘Home Energy Scotland’ service, run in Scotland on behalf of the Scottish Government, which “provides customers with “one-stop shop” access to the financial (and other) support for home energy efficiency”.<sup>396</sup> The Energy Saving Trust said that each year the service supports over 90,000 customers and is estimated to have saved more than 382,000 tonnes of CO<sub>2</sub> emissions in 2019–2020.<sup>397</sup> Meanwhile, IPPR argued that a public information campaign is needed to support the decarbonisation of home heating “to reduce the anxieties associated with change and help people understand the options and support available”.<sup>398</sup>

---

389 Written evidence from the CAST Consortium ([CCE0048](#))

390 [Q 1](#) (Toby Park)

391 Written evidence from Aldersgate Group ([CCE0113](#))

392 Written evidence from the Greater Manchester Combined Authority Health and Social Care Partnership ([CCE0109](#))

393 [Q 118](#) (Tim Lord)

394 [Q 1](#) (Toby Park)

395 [Q 23](#) (Barbara Pompili)

396 Written evidence from the Energy Saving Trust ([CCE0047](#))

397 *Ibid.*

398 Written evidence from the IPPR ([CCE0089](#))

227. The energy efficiency of homes available to buy or rent could be increased through higher building standards and more consistent enforcement. The IPPR referred to improving standards for new builds,<sup>399</sup> and the Global Sustainability Institute at Anglia Ruskin University told us: “The Minimum Energy Efficiency Standard in the private rental sector has been a much-needed regulatory measure, but has loopholes, so should be strengthened.”<sup>400</sup> The Aldersgate Group similarly called for “tightening up and broadening the scope of regulatory standards on energy efficiency in existing and new buildings” and better enforcement, and added that standards should be set a good time in advance and not subject to regular change.<sup>401</sup>
228. The Global Sustainability Institute at Anglia Ruskin University suggested policies could be designed like Japan’s *Cool Biz* campaign to influence shifts in consumer demand.<sup>402</sup> Governor Yuriko Koike told us about the *Cool Biz* campaign which changed norms to reduce energy use in buildings. She explained that the campaign called on businesspeople “to change their clothes or attire in summer to something more suitable for climate change”, allowing air conditioning units to be set at a higher level and reduce energy demand.<sup>403</sup>
229. Regarding small-scale energy generation like rooftop solar, the District Councils’ Network called for incentives for solar panel installations to be reintroduced and others made a similar point.<sup>404</sup>

### *Government position*

230. Mr Hands said in his evidence to the Committee: “We have set a date of 2035 for the phase-out of gas boilers: to allow people, when their gas boiler naturally comes up for renewal or replacement, to take on instead a low-carbon alternative, e.g. a heat pump.”<sup>405</sup> DLUHC referred in their submission to a Net Zero Strategy target of 600,000 heat pump installations per year by 2028 and an aim to reduce costs by “at least 25–50 per cent by 2025 and to parity with gas boilers by 2030 at the latest”.<sup>406</sup> In their submission, BEIS noted a new market-based incentive for heating system manufacturers and investment in heat pump innovation to support these objectives.<sup>407</sup>
231. DLUHC mentioned funding to improve energy efficiency in lower-income households through the Home Upgrade Grant and Social Housing Decarbonisation Fund and DLUHC and BEIS both referred to grants for heat pumps provided through the Boiler Upgrade Scheme.<sup>408</sup> Mr Hands told us: “On the home heating transformation, various people have called on us

---

399 *Ibid.*

400 Written evidence from the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#))

401 Written evidence from Aldersgate Group ([CCE0113](#))

402 Written evidence from the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#))

403 [Q 43](#) (Governor Yuriko Koike)

404 Written evidence from the District Councils’ Network ([CCE0107](#)) and the CAST Consortium ([CCE0048](#))

405 [Q 148](#) (Greg Hands MP). BEIS, *Heat and Buildings Strategy*, CP 388 (October 2021), p 20: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1044598/6.7408\\_BEIS\\_Clean\\_Heat\\_Heat\\_Buildings\\_Strategy\\_Stage\\_2\\_v5\\_WEB.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1044598/6.7408_BEIS_Clean_Heat_Heat_Buildings_Strategy_Stage_2_v5_WEB.pdf) [accessed 5 July 2022]. The strategy said one of the ways the Government would develop the markets and consumer choices required to achieve net zero was through “signalling our intention to phase out the installation of new natural gas boilers from 2035”.

406 Written evidence from the DLUHC ([CCE0063](#))

407 Written evidence from BEIS ([CCE0059](#))

408 Written evidence from the DLUHC ([CCE0063](#)) and BEIS ([CCE0059](#))

to pay for a complete nationwide heat pump programme. That is neither practical nor necessarily desirable. We have committed a certain amount of government funding to try to move the market forward.”<sup>409</sup> When asked about the Green Homes Grant scheme, he said: “We do feel that did not deliver at the rate and scale we had originally hoped for. It faced a number of delivery challenges. That is why we closed the scheme, but we are now looking at other ways to deliver that same objective.”<sup>410</sup>

232. Mr Hands told us about the Government’s Simple Energy Advice service which provides owners and occupiers with “personal tailored advice for improving and decarbonising their homes” and said the Government plans to deliver a “comprehensive energy advice service on GOV.UK”, with telephone support and local area advice, by the summer.<sup>411</sup> The service has since been launched on the GOV.UK website.<sup>412</sup> Regarding Energy Performance Certificates (EPCs), which provide information to support decisions of owners and occupiers about potential energy efficiency improvements, DLUHC said it is “investigating options for amending the recommendations for energy efficiency improvements detailed on the EPC ... We will be considering the inclusion of proposals on amending recommendations as part of a consultation on the Energy Performance of Buildings Regulations in 2022”.<sup>413</sup>
233. On building standards, DLUHC referred to the Heat and Buildings Strategy commitment to consult on “phasing in higher minimum performance standards to ensure all homes meet EPC Band C by 2035, where cost-effective, practical and affordable”, and noted the Future Homes Standard—which will require new homes to meet higher energy efficiency and emissions performance levels from 2025—and interim changes to building regulations in this direction.<sup>414</sup>
234. On 6 July 2022 the Government introduced the Energy Security Bill to Parliament.<sup>415</sup> The Bill includes measures that would enable:
- a requirement to be placed on fossil fuel heating appliance manufacturers to achieve a growing proportion of sales of low-carbon heat pumps;<sup>416</sup>
  - regulations governing the assessment, certification and publication of EPCs to be amended;<sup>417</sup>
  - a greater proportion of energy suppliers to be required to comply with the Energy Company Obligation (ECO) scheme, which obliges suppliers to support some low-income and vulnerable households to install energy efficiency and heating measures.<sup>418</sup>

---

409 [Q 149](#) (Greg Hands MP)

410 [Q 150](#) (Greg Hands MP)

411 [Q 153](#) (Greg Hands MP)

412 HM Government, ‘Find ways to save energy in your home’: <https://www.gov.uk/improve-energy-efficiency> [accessed 5 September 2022]

413 Written evidence from the DLUHC ([CCE0063](#))

414 *Ibid.*

415 [Energy Bill \[HL\]](#)

416 Department for Business, Energy & Industrial Strategy, ‘Energy Security Bill factsheet: Low-carbon heat scheme’ (26 August 2022): <https://www.gov.uk/government/publications/energy-security-bill-factsheets/energy-security-bill-factsheet-low-carbon-heat-scheme> [accessed 15 September 2022]

417 *Ibid.*

418 *Ibid.*

235. **Insulating homes could deliver emissions reductions, help reduce household energy bills and improve energy security, but without greater government support comprehensive home insulation remains out of reach for many households who are being affected acutely by the cost-of-living crisis. Without improved insulation, the Government's heat pump installation targets are also at risk as homes must be well-insulated for heat pumps to work effectively.**
236. **The uptake of energy efficiency improvements and low-carbon heating is being constrained by their upfront costs and the insufficiency of government support. While we welcome the Government's efforts to support heat pump installations and unit cost reductions, heat pumps are not appropriate for all homes and their cost remains a barrier. Households must be supported financially, through better information and through straight-forward installation processes. While we welcome the Government's new energy advice service, it is unclear that it will provide the level of support needed.**
237. *The Government should coordinate a national drive to improve the energy efficiency of our homes, including by amending the Energy Security Bill to introduce a support package to help households with installation costs. The Government should expand its energy advice service to include a facility whereby a dedicated contact person supports households throughout the process of installing energy efficiency measures and low carbon heating technologies. We comment further on the communications aspect of the advice service in Chapter 8.*
238. **The Future Homes Standard will strengthen building standards for energy efficiency and emissions performance from 2025 but homes are currently being built to existing standards, which have weaknesses and are not well-enforced. This is resulting in missed energy savings and emissions reductions and costly processes of retrofitting for home-buyers. It is also a missed opportunity to create a social norm of environments that support low-carbon behaviours.**
239. *The Government should review the Future Homes Standard timetable and bring forward further interim measures to strengthen energy efficiency standards for new homes as a matter of urgency, as well as taking steps to improve the enforcement of current standards.*

### What we buy

#### Why

240. Changing purchasing behaviours can also reduce emissions and environmental impacts. The British Retail Consortium explained, "The products bought in our stores are equivalent to almost a third of typical UK household emissions,"<sup>419</sup> and Green Alliance noted the environmental footprint of resource use and waste from consumer goods.<sup>420</sup> Prof Peattie argued, "The science tells us we are living beyond our means materially," including in relation to fast fashion and disposal of still-functioning electronics.<sup>421</sup>

---

419 Written evidence from the British Retail Consortium ([CCE0042](#))

420 Written evidence from Green Alliance ([CCE0051](#))

421 [Q 83](#) (Prof Ken Peattie)

241. There is public support for a more efficient use of resources, including through measures that support reduction, reuse and recycling.<sup>422</sup> The Local Government Association (LGA) referred to a 2021 study in which a majority of people surveyed globally were interested in purchasing more durable products and maintaining and repairing products to increase product life.<sup>423</sup>

### *What*

242. Dr Moraes defined sustainable consumption as “consumption that aims to reduce the resource intensity of production”, and added:

“In addition to buying and consuming less, it can include practices such as buying products and services that are green; making products last longer; repairing, reusing and/or repurposing products to delay disposal; donating products that are no longer needed; and recycling and composting.”<sup>424</sup>

Ms Terry similarly argued “consumption has to decrease” and also referred to clothing rental services, platforms for passing on second-hand goods and a trend towards repair.<sup>425</sup> Prof Peattie emphasised the role that product-as-service models—including product rental services—could play in reducing the resources used in consumption,<sup>426</sup> and Mr Park suggested a circular economy model would “not necessarily mean we have to stop consuming but the material goods and the embodied carbon are recycled as much as they can be”.<sup>427</sup>

### *Possible policy solutions*

243. Witnesses suggested various policies could be used to support purchasing behaviours with reduced emissions and environmental impacts, including by improving the information available and making products offered on the market more sustainable.
244. There were mixed views on how effective labelling and other information-sharing tools are at influencing consumer choice, however several witnesses supported including climate and environmental information on labelling to influence how businesses design and produce products.
245. Secretary-General Lehtomäki told us about the Nordic Swan Ecolabel, which is based on “broad and thorough” criteria and is “one of the most well-known trademarks among consumers in the Nordics”.<sup>428</sup> Ms Pompili described a product repairability index and eco-score labelling being developed and trialled by the Government of France, and told us: “Companies call the ministry to explain that they are changing the packaging of their products to change the colour of their score to green, because they see that if they do not do that they lose customers.”<sup>429</sup> We heard from Which? that consumers would

---

422 Written evidence from Green Alliance ([CCE0051](#))

423 Written evidence from the Local Government Association ([CCE0035](#)). The underlying research is available here: Capgemini Research Institute, *Circular Economy for a Sustainable Future* (2021): <https://www.capgemini.com/gb-en/wp-content/uploads/sites/3/2021/11/Circular-Economy.pdf> [accessed 15 September 2022]

424 Written evidence from Dr Caroline Moraes ([CCE0019](#))

425 [Q 75](#) (Angela Terry)

426 [Q 75](#) (Prof Ken Peattie)

427 [Q 7](#) (Toby Park)

428 [Q 56](#) (Secretary-General Paula Lehtomäki)

429 [Q 30](#) (Barbara Pompili)

like more information about the environmental impact of food products and the IGD made the same point.<sup>430</sup> The Aldersgate Group recommended the Government work with relevant independent bodies “to develop consistent, transparent and easily accessible labelling and sustainability information for key product types”, explaining that the lack of labelling in some areas “is driving progressive businesses to develop their own labels but this process is fraught with difficulties”.<sup>431</sup>

246. Mr Hand explained that, from Giki’s experience, users want simplicity and consistency of product information, “And by consistency they mean that if they are looking, for example, at food, they want to see it across all foods, not selectively disclosed or selectively coloured.”<sup>432</sup> Witnesses said the Government has an important role to play in ensuring consistency. Mr Dimbleby told us: “The first thing the Government need to do on labelling and regulation is to own the measurements, and to say, ‘Here are the things we care about’ ... so when you get a label you know that it is measured in a way that the Government have put their seal to.”<sup>433</sup> Prof Lang said Government needs “to be coherent about it” and argued:

“It cannot just be devolved to companies. There is such a fear of the nanny state that we have allowed nanny corporations to shape behaviour. We have to grasp this nettle and say there has to be a national position ... We do not want hundreds of different apps; we want one app ... It needs to be properly audited.”<sup>434</sup>

247. However, Mr Dimbleby told us: “In any kind of environmental labelling or health labelling you are dealing with very specific groups. You will not change the system through changing that point.”<sup>435</sup> Though he went on to add: “I think it is important, but it is not going to change consumer choice. It will change the behaviour of companies, particularly where they are marginally doing things that are destructive.”<sup>436</sup> Others made similar points.<sup>437</sup>
248. Product standards can also be used to support consumer choice and make resource-efficient and repairable products more available. The British Standards Institute told us standards could help consumers to “recognise genuine low emissions products” and make “green choices”.<sup>438</sup> The Aldersgate Group recommended the Government prioritise developing “clear and forward-looking” standards for resource and carbon intensive products,<sup>439</sup> John Lewis called for minimum product standards and others proposed specific standards covering repairability and technologies to support refilling.<sup>440</sup> We heard that standards should be progressively increased in line with climate and environmental goals.<sup>441</sup> We referred to challenges faced by businesses due to a lack of standards in Chapter 6.

---

430 Written evidence from Which? ([CCE0039](#)) and the Institute of Grocery Distribution ([CCE0099](#))

431 Written evidence from Aldersgate Group ([CCE0113](#))

432 [Q 98](#) (James Hand)

433 [Q 102](#) (Henry Dimbleby)

434 [Q 101](#) (Prof Tim Lang)

435 [Q 99](#) (Henry Dimbleby)

436 [Q 101](#) (Henry Dimbleby)

437 [Q 99](#) (Prof Tim Lang) and written evidence from Lorna Benton, Naomi Fallon, Paula Feehan and Alicia Walker ([CCE0046](#))

438 Written evidence from the British Standards Institute (BSI) ([CCE0078](#))

439 Written evidence from Aldersgate Group ([CCE0113](#))

440 Written evidence from John Lewis ([CCE0092](#)) and Ecover ([CCE0094](#)) and [Q 19](#) (Ugo Vallauri)

441 Written evidence from the IPPR ([CCE0089](#))

249. IKEA UK & Ireland said they see an “urgent need” for the implementation of the Extended Producer Responsibility (EPR) proposals in the Government’s 2018 strategy, *Our Waste, Our Resources: A Strategy for England*.<sup>442</sup> EPR can involve charging producers for waste disposal, which incentivises the design of products that are easier to reuse, dismantle and recycle.<sup>443</sup> Mr Restorick suggested the development of EPR should be sped up and expanded to address fashion and electronics,<sup>444</sup> while John Lewis expressed surprise that consultations on the EPR scheme for textiles have been delayed with no new date set.<sup>445</sup>
250. We also heard that a lack of recycling and reuse infrastructure is a barrier to developing more circular supply chains for consumer goods.<sup>446</sup> Aldersgate Group explained that “access to appropriate material sorting, recycling and remanufacturing facilities is essential to support the efforts of businesses wanting to develop circular business models and increase the re-use of secondary materials”.<sup>447</sup>
251. Finally, witnesses said tax incentives and other tools could be used to encourage repair.<sup>448</sup> The British Retail Consortium told us: “Some European countries are attempting to incentivise repair through other forms of tax reductions such as Sweden where 50 per cent of labour costs in repair are tax deductible and in Austria where labour costs of repair may become reimbursable.”<sup>449</sup>

### *Government position*

252. When asked if the Government believes an overall reduction in purchases of consumer goods is needed to meet net zero, Mr Hands told us: “The Government do not have a view on how much stuff people should buy, to be frank. The Government have a view on trying to make the things people do buy more sustainable, more environmentally and, I hope, more cost-effective.”<sup>450</sup>
253. Defra referred in their submission to the Net Zero Strategy’s goal of making “the act of choosing green significantly easier, clearer and cheaper”.<sup>451</sup> BEIS similarly referred to a Net Zero Strategy commitment to make “green choices affordable and easy by working with businesses and industry to set strong regulatory signals[,] and collaborate to reduce costs and provide better quality, longer lasting and lower environment impact products, and services”.<sup>452</sup>

---

442 Written evidence from IKEA UK & Ireland (CCE0104)

443 Defra, *Our Waste, Our Resources: A Strategy for England* (18 December 2018), p 31: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/765914/resources-waste-strategy-dec-2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/resources-waste-strategy-dec-2018.pdf) [accessed 15 September 2022]

444 Q 76 (Trewin Restorick)

445 Written evidence from John Lewis (CCE0092)

446 QQ 34,37 Carmel McQuaid, also written evidence from Amazon UK (CCE0095), Hubbub (CCE0060) and Ecover (CCE0094)

447 Written evidence from Aldersgate Group (CCE0113)

448 Q 22 (Ugo Vallauri) and written evidence from John Lewis (CCE0092) and IKEA UK & Ireland (CCE0104)

449 Written evidence from the British Retail Consortium (CCE0042)

450 Q 159 (Greg Hands MP)

451 Written evidence from Defra (CCE0068)

452 Written evidence from BEIS (CCE0059)

254. Regarding labelling, BEIS referred to a Net Zero Strategy commitment to “empower people to make informed choices” when buying goods and services and to explore “how we better label these with their emission intensity and environmental impact”.<sup>453</sup> Defra referred to ongoing work on eco-labelling for food and drink products,<sup>454</sup> and Mr Eustice told us:

“It is complex, but it is an area that we are looking at because I recognise that we owe it to the public to make those more informed choices if there is a wish there ... We owe it to them to try to get some sort of consistent methodology that will not be perfect but will give them the ability to make those informed choices. That is something we are looking at.”<sup>455</sup>

As we noted above, the Government committed to develop a mandatory methodology for food eco labels and product sustainability claims in the Government food strategy.

255. Mr Eustice told us the Government uses a combination of measures to support behaviour change including regulatory change, “So that the things on offer to the public in retail environments change, therefore causing people to adopt more sustainable approaches.”<sup>456</sup> He gave the example of regulations mandating greater water efficiency in washing machines.<sup>457</sup>
256. The Government ran a consultation early in 2022 on developing a market for low emissions industrial products which, according to an indicative timetable in the Industrial Decarbonisation Strategy, may be followed by the introduction of consumer product labelling from the mid-2020s onwards and voluntary low carbon product standards by 2025.<sup>458</sup>
257. Mr Eustice also referred to the Government’s EPR proposals and described them as “quite a powerful incentive on food manufacturers and retailers to reduce the amount of plastic packaging that they use, reduce the volumes and have more recyclable types of plastic”.<sup>459</sup>
258. More widely, Defra noted the Government’s efforts to support a shift to a circular economy, including by introducing consistency in waste recycling and disposal,<sup>460</sup> and Mr Jackson mentioned initiatives with fashion retailers aiming to make the products they offer more sustainable.<sup>461</sup>
259. **As noted above, we welcome the Government’s commitment in the Government food strategy to develop a mandatory methodology for food and drink eco labels and sustainability claims. This has the potential to drive producers and retailers to improve the sustainability of products on offer to consumers.**

---

453 *Ibid.*

454 Written evidence from Defra ([CCE0068](#))

455 [Q 134](#) (George Eustice MP)

456 [Q 133](#) (George Eustice MP)

457 [Q 132](#) (George Eustice MP)

458 Department for Business, Energy & Industrial Strategy, *Call for Evidence: Towards a Market for Low Emissions Industrial Products* (December 2021), p 12: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1038546/towards-market-for-low-emissions-industrial-products-cfe.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1038546/towards-market-for-low-emissions-industrial-products-cfe.pdf) [accessed 15 September 2022]

459 [Q 136](#) (George Eustice MP)

460 Written evidence from Defra ([CCE0068](#))

461 [Q 133](#) (Andrew Jackson)

260. *The Government should urgently consult on and then launch the mandatory methodology for food eco labels and sustainability claims.*
261. **Product standards could be used to a greater extent to drive up the sustainability of products and services available in a manner consistent with the Government's goal of making it easier, clearer and cheaper for consumers to make green choices.**
262. *The Government should accelerate the development of low carbon product standards referred to in the Industrial Decarbonisation Strategy and review the role enhanced product standards for other sustainability characteristics could play in the most resource-intensive consumer goods sectors. It should also accelerate labelling proposals put forward in the same strategy and review the role enhanced eco-labelling could play in consumer goods sectors where current frameworks do not cover the key climate and environmental impacts.*
263. **The Government's work on Extended Producer Responsibility is welcome and could support less resource-intensive consumption. However, progress has been disappointingly slow in developing proposals originally announced in 2018.**
264. *The Government should develop Extended Producer Responsibility schemes, including for textiles and electronics, with much greater urgency.*

## CHAPTER 8: COMMUNICATIONS, PUBLIC ENGAGEMENT AND EDUCATION

---

*“We urgently need a wide-reaching, government-led campaign to communicate what climate change risks and impacts we experience today in the UK and the likely impacts over the next two decades.”*

*Dr Rachel Harcourt and Professor Suraje Dessai, University of Leeds*

265. While the evidence suggests behaviour change for climate and environmental goals cannot be achieved through communications alone, communicating the scale of change with the public should be a vital part of the Government’s approach. Information communicated by the Government, the wider media and education can influence everyday behaviours, while public engagement can improve the legitimacy and effectiveness of behaviour change interventions.

### Communications

266. As reflected in Chapter 3 of this report, the public’s understanding of the behaviour changes required to reach climate and environmental goals is limited. Many witnesses suggested the Government should take steps to plug this gap in public awareness through a government-led communications campaign, which Ms Terry described as “the missing piece of the jigsaw”, adding: “The public are ready, we are pushing at an open door.”<sup>462</sup> Dr Harcourt and Prof Dessai echoed this point in their submission, stating: “We urgently need a wide-reaching, government-led campaign to communicate what climate change risks and impacts we experience today in the UK and the likely impacts over the next two decades.”<sup>463</sup>
267. The last major government communications campaign about climate change and the environment was the *Act on CO<sub>2</sub>* campaign launched on 27 November 2008.<sup>464</sup> Mr Lord told us since the *Act on CO<sub>2</sub>* campaign: “There have been some small-scale campaigns, usually around specific elements of environmental behaviours, recycling and so on, but overall there has been a reluctance to communicate in a transparent and front-footed way.”<sup>465</sup>
268. During the COVID-19 pandemic the Government provided regular updates to the public about the virus. Daily briefings on national television provided data about the spread of COVID-19 and were often delivered by the Prime Minister, the Chief Medical Officer and the Government Chief Scientific Adviser. Slogan-based campaigns designed to encourage behaviour change

---

462 [QQ 79, 84](#) (Angela Terry)

463 Written evidence from Dr Rachel Harcourt and Prof Suraje Dessai ([CCE0044](#))

464 [Q 112](#) (Tim Lord), see also Lexology, *UK government launches ‘ACT on CO<sub>2</sub>’ People Power Challenge initiative* (15 December 2008): <https://www.lexology.com/library/detail.aspx?g=6c8a9733-1041-4c15-9511-d986bdf7481> [accessed 15 September 2022].

465 [Q 112](#) (Tim Lord)

such as “hands, face, space” and “stay home, protect the NHS, save lives” were run also.<sup>466</sup>

269. Several witnesses told us that as the country emerges from the pandemic, the Government should reflect on lessons that can be learned from its communications on COVID-19 and applied to communications on achieving climate and environmental goals. Matt Bourn, Director of Communications at the Advertising Association, emphasised the importance of learning from the Government’s COVID-19 communications, describing the pandemic as “the best live example of, essentially, mass behaviour change, rapidly, in a crisis”.<sup>467</sup> Furthermore, Mr Bourn described the effect that government-led communications in the pandemic had on businesses, suggesting “brands ... saw the leadership that was coming from government, and they reinforced it through their own advertising”.<sup>468</sup>
270. Comparing the Government’s leadership in the pandemic to its leadership on climate change, Steve Smith, Executive Producer at Picture Zero Productions, told us:

“Very effective messaging came from COVID and there are lessons that we can learn from it—the sense that, when we really think something is a crisis, government can change overnight. But with climate change, we are still not doing that, are we? We are still not really seeing climate change as the crisis that the science says it is.”<sup>469</sup>
271. The use of data and science in the Government’s COVID-19 communications was highlighted by some witnesses as a useful approach which could be transferred to the context of climate change and environmental damage. Mr Lord said: “It was helpful to speak to people as grown-ups,” while Prof Anable noted: “We had scientists flanking policymakers and policymakers referring to the science to justify what they did.”<sup>470</sup>
272. **While communications on their own are insufficient to facilitate the behaviour change needed to meet the UK’s climate and environmental goals, the COVID-19 pandemic demonstrated that clear, well-resourced public communications play an important role in increasing public understanding of the challenges we face collectively and the actions we can all take to address these.**
273. There are a range of structures within government to manage and deliver communications campaigns on different scales. The Government Communication Service (GCS) is a civil service organisation within the Cabinet Office and is responsible for “supporting professional communicators

---

466 Prime Minister’s Office, ‘Slides, datasets and transcripts to accompany coronavirus press conferences’ (2 April 2020): <https://www.gov.uk/government/collections/slides-and-datasets-to-accompany-coronavirus-press-conferences>, also DHSC, ‘New campaign to prevent the spread of coronavirus indoors this winter’ (9 September 2020): <https://www.gov.uk/government/news/new-campaign-to-prevent-spread-of-coronavirus-indoors-this-winter> and Rotherham, Doncaster and South Humber NHS Foundation Trust, ‘New national lockdown - Stay Home, Protect the NHS, Save Lives’ (5 January 2021): <https://www.rdash.nhs.uk/news-and-events/new-national-lockdown-stay-home-protect-the-nhs-save-lives/> [accessed 7 September 2022].

467 Q 128 (Matt Bourn)

468 *Ibid.*

469 Q 129 (Steve Smith)

470 Q 110 (Tim Lord) and Q 92 (Prof Jillian Anable)

across government.”<sup>471</sup> On 8 February 2021, the GCS published a piece of guidance titled *The Principles of Behaviour Change Communications*, which aims to give communicators across government practical ways to apply behavioural science in their communications campaigns.<sup>472</sup>

274. In a submission to the Committee, the Chief Executive of the GCS, Simon Baugh, said: “Following the success of the [Together for Our Planet] campaign and the Glasgow Climate Pact, GCS is currently developing and testing a strategy for climate change communications post-COP26”.<sup>473</sup> However, when the Committee asked for more information about the strategy he had referred to, Mr Baugh’s reply stated:

“Although there is no single publishable government communications strategy for climate change, GCS will shortly be publishing the Government Communication Plan 22/23 on the GCS website. Within this, delivering communications in support of the Government’s climate and environmental commitments is a priority for teams across departments.”<sup>474</sup>

The Government publishes an annual Government Communications Plan to set priorities for communications for the year ahead. At the time of writing, the Plan for 2022/23 had not been published.

275. **Guidance published by the Government Communication Service titled *The Principles of Behaviour Change Communications* provides a basis for communicators across government to consider behavioural science in designing communications campaigns, but there is no similar guidance specifically designed for behaviour change to meet climate and environmental goals.**
276. *As part of the proposed package of guidance we referred to in Chapters 4 and 5, we call on the Government to develop and publish guidance for departments to inform their communications strategies on behaviour change to meet climate and environmental goals. The guidance document could draw on the Government Communication Service’s guidance, the Principles of Behaviour Change Communications, and apply the principles in the context of meeting climate and environmental goals.*

#### *Best practice*

277. A number of witnesses described best practice for communications on behaviour change to meet climate and environmental goals which they said the Government could adopt in a communications campaign or strategy.
278. The importance of positive messaging in communications on behaviour change for climate and environmental goals was highlighted by several witnesses. Positive messaging can be achieved through emphasising the co-benefits or “win-wins” associated with changes to behaviour, such as

471 Government Communication Service, ‘Latest from the Government Communication Service’: <https://www.gov.uk/government/organisations/civil-service-government-communication-service> [accessed 7 September 2022]

472 GCS, *The Principles of Behaviour Change Communications* (23 April 2021): <https://gcs.civilservice.gov.uk/publications/the-principles-of-behaviour-change-communications/> [accessed 7 September 2022]

473 Written evidence from the GCS (CCE0076)

474 Written evidence from the GCS (CCE0115)

improvements to health and wellbeing and wider benefits to society like job creation.<sup>475</sup> Prof Poortinga explained:

“Co-benefits provide a way to reach the non-usual suspects. Many people are already concerned about climate change and have changed their diets for that reason, but it is not an argument that will sway everybody. You can see that the co-benefits, of health for example, or reducing air pollution are arguments that are accepted much more widely, so if you want to get to the non-usual suspects in behaviour change, citing the co-benefits may be effective.”<sup>476</sup>

279. Ms Cattell echoed this point in her evaluation of a recent government campaign led by Defra about domestic burning, *Burn Better*.<sup>477</sup> The communications campaign successfully used messaging to incentivise people to reduce domestic burning through encouraging them to think about their health, the health of their families, and other co-benefits associated with reducing the use of fires in homes.<sup>478</sup>

280. Behaviour change to meet climate and environmental goals can be framed as an opportunity. Ms Pompili told us:

“If we want to have everyone on board, we have to explain to them that it is not only a threat but an opportunity to build a better world for them and for their children. I am a mother. When I think of what we have to do, it can be exhausting, but it is a great opportunity for my girls and for our children to have new jobs in new industries and to be involved in something very exciting, if we have a good narrative.”<sup>479</sup>

281. Many witnesses argued messages of fear in communications on climate change and the environment should be avoided and suggested focusing instead on practical advice and steps individuals can take to change their behaviours. The National Lottery Community Fund said: “Dire warnings may be counterproductive and induce a paralysing effect but showing what individuals can do has helped encourage people to act.”<sup>480</sup> Picture Zero Productions agreed that negative messaging can lead to inaction, and Mr Smith explained a pessimistic approach is disempowering for some audiences, causing people to “tune out and think that nothing can be done”.<sup>481</sup> Others agreed.<sup>482</sup>

282. Furthermore, some witnesses told us that as well as having a paralysing effect, messages of fear can cause and exacerbate “climate anxiety”, which can lead to deterioration in mental health, particularly among young people.<sup>483</sup>

283. While communications should avoid messages of fear, they should be honest and transparent about the situation. Mr Restorick and Sir Patrick Vallance

---

475 Written evidence from Climate Outreach ([CCE0111](#)) and Trafford Council ([CCE0096](#)) also [Q 66](#) (Dr Emily Gray), [Q 69](#) (Prof Wouter Poortinga), [Q 110](#) (Tim Lord) and [Q 36](#) (Carmel McQuaid)

476 [Q 69](#) (Prof Wouter Poortinga)

477 Defra, ‘Burn better: Making changes for cleaner air’: (<https://uk-air.defra.gov.uk/library/burnbetter/> [accessed 7 September 2022])

478 [Q 134](#) (Emily Cattell)

479 [Q 23](#) (Minister Barbara Pompili)

480 Written evidence from The National Lottery Community Fund ([CCE0031](#))

481 [Q 126](#) (Steve Smith)

482 [Q 112](#) (Sir Patrick Vallance) and [Q 128](#) (Dr Kris De Meyer)

483 Written evidence from Natural England ([CCE0034](#)) and Dr Elizabeth Marks, Dr Panu Pihkala, Caroline Hickman and Elouise Mayall ([CCE0017](#))

both emphasised the importance of openness about the potential impacts of climate change and environmental damage in communications.<sup>484</sup> Hubbub expanded on this in their written submission, arguing the Government should be more explicit about the domestic impacts of climate change, through drawing attention to “growing evidence that more extreme weather events will impact the UK through flooding, drought and urban heat”.<sup>485</sup> Similarly, Dr Gray told us the Government should consider being honest and open with the public about the cost of inaction.<sup>486</sup>

284. Mr Naru said that in communicating with the public the Government should also be honest about the limits of their knowledge in this space, suggesting the Government should focus on having the right techniques, systems and processes in place, rather than saying, “We’ve got the idea and we’ve got the solution.”<sup>487</sup> Sir Patrick Vallance made a similar point:

“If, as a scientist, an area that you currently think looks a certain way is tested and turns out to be completely different, it is a joyous moment of understanding. For a politician, it is a horrible U-turn. That difference is rather important to bridge when thinking about communication.”<sup>488</sup>

285. We heard that while the UK public is concerned about climate change and environmental damage, there is limited understanding of the most effective actions people can take to reduce emissions and environmental damage. Dr Kris De Meyer, Director at the UCL Climate Action Unit, suggested that to break through this confusion, the Government needs to tell the stories of the “how”, a point echoed by Ms Terry in her suggestion that the Government needs to communicate “really clear, simple visualisations that show people where the big issues are that they can make a difference to”.<sup>489</sup> Similarly, Prof Anable emphasised the importance of clarity of message in communications on behaviour change for climate and environmental goals: “People do not know what 1 tonne, 2 tonnes, whatever are in the abstract. They need to understand that an air trip to New York is the equivalent of the average person’s car travel for two years, for instance. Things need to be put in that kind of perspective.”<sup>490</sup>

286. We received evidence from Per Grankvist, Chief Storyteller at Viable Cities, about the effectiveness of storytelling to clearly communicate the behaviour changes that will be required to meet climate and environmental goals. Mr Grankvist told us that historically stories have been the primary means of imparting knowledge, a point echoed by Historic England.<sup>491</sup> Mr Grankvist explained that stories “hold a visceral clout that no amount of graphs, charts or figures can replace”, but also emphasised that the story themes used in his methods are based on science.<sup>492</sup> Similarly, Dr De Meyer described the effectiveness of storytelling as a method for communicating behaviour change and referred to a news piece following the story of a pensioner “finding out how to navigate green grants from the Government” to retrofit her home,

---

484 [Q 84](#) (Trewin Restorick), [Q 114](#) (Sir Patrick Vallance)

485 Written evidence from Hubbub ([CCE0060](#))

486 [Q 69](#) (Dr Emily Gray)

487 [Q 41](#) (Faisal Naru)

488 [Q 117](#) (Sir Patrick Vallance)

489 [Q 126](#) (Dr Kris De Meyer) and [Q 79](#) (Angela Terry)

490 [Q 95](#) (Prof Jillian Anable)

491 Written evidence from Mr Per Grankvist ([CCE0079](#)) and Historic England ([CCE0086](#))

492 Written evidence from Mr Per Grankvist ([CCE0079](#))

which showed the pensioner overcoming challenges and retrofitting her home with double glazing and a heat pump on a small fixed income.<sup>493</sup>

287. Often, the most effective communications about climate change and environmental damage come from trusted leaders and local voices within communities. Climate Outreach explained that communications from “traditional” messengers on these issues, like environmental NGOs, can be counterproductive because such messengers can “sometimes put people off engaging as they feel they simply cannot relate to them due to different political ideologies and values”.<sup>494</sup> Similarly, More In Common highlighted that trusted voices in local communities are likely to be more effective than climate activists for “more sceptical groups”.<sup>495</sup> In their submission, the Welsh Government described their “Team Wales” approach to communications which involves co-creating messages with regional and local partners, particularly in the delivery of events such as Wales Climate Week.<sup>496</sup>
288. Scientists were also described as trusted messengers by some of the witnesses. Prof Poortinga told us: “Scientists are more trusted than any other group,” suggesting that there is a role to be played by scientists in the communication of climate change.<sup>497</sup> Similarly, Sir Patrick Vallance described scientists as “trusted voices in this space” because they can give “neutral, policy-independent science advice”.<sup>498</sup>

#### *Considerations in government communications*

289. Government communications on behaviour change for climate and environmental goals must form part of a wider approach which involves other policy instruments, such as taxation and regulations. The overall approach should place considerations of affordability and fairness at the heart of policy design. Additionally, government policies and actions across all areas must be consistent with net zero ambitions. Only in this context will clear communications be effective.
290. Discussing balance between communications and other policy instruments used to encourage behaviour change for climate change and the environment, Mr Eustice and Chris Thompson, Director of Clean Growth in BEIS, emphasised that the Government’s approach prioritised upstream policy signals to businesses and markets, rather than communicating the issues with the public in a coordinated way.<sup>499</sup> Similarly, Mr Hands told us he did not envisage the Government having a centralised budget for communications on climate change and the environment because the Government is focused on “trying to keep the messaging tied to the individual area or the individual policy”.<sup>500</sup>
291. Mr Hands described BEIS’s work in developing a service initially named “Simple Energy Advice”, which will be “a very comprehensive energy advice service to help consumers navigate further the process of improving the

---

493 [Q 126](#) (Dr Kris De Meyer)

494 Written evidence from Climate Outreach ([CCE0111](#))

495 Written evidence from More In Common ([CCE0050](#))

496 Written evidence from the Welsh Government ([CCE0081](#))

497 [Q 66](#) (Prof Wouter Poortinga)

498 [Q 109](#) (Sir Patrick Vallance)

499 [Q 143](#) (George Eustice) and [Q 155](#) (Chris Thompson)

500 [Q 154](#) (Greg Hands MP)

energy performance of their homes”.<sup>501</sup> The service has since been launched on the GOV.UK website and is to be welcomed, but does not appear to be widely promoted or very comprehensive.<sup>502</sup> Mr Thompson explained why a targeted, tailored approach to communications on energy efficiency had been pursued in the form of an advisory GOV.UK website, stating: “There is no point in someone thinking that a heat pump is a really good idea, if they have not thought about double glazing or loft insulation.”<sup>503</sup>

292. Reflecting on the Government’s approach to communications, Mr Lord told us: “There is scope for clearer communications, but I am cautious about anything that was trying to instruct people to make fundamental changes they cannot afford in the short term; it is about being clear what they can do in the short term.”<sup>504</sup> He also emphasised the importance of communicating the sequencing of behaviour changes and targeting the sections of the population who are financially best placed to take action. For those who cannot afford to make changes, like installing a heat pump or purchasing an electric vehicle, Mr Lord suggested the Government should focus on communicating what people can do to “help to demystify and perhaps reduce some of the concerns that people quite legitimately have around elements of this transition”.<sup>505</sup>
293. Prof Anable said campaigns about behaviour change need to be underpinned by fairness, ensuring “people believe that everybody will be treated fairly, everybody will have to do their bit and no one will be able to get away with it”.<sup>506</sup>
294. Government communications must be underpinned by consistency in messaging, policies and actions. Pauline Element emphasised that “the Government has to communicate clearly and be seen to be acting consistently with that communication”, while Humanist Climate Action told us: “No amount of smart communication will outweigh the impact of inconsistency of behaviour and message.”<sup>507</sup>
295. **The Government’s new energy advice service signifies a positive step; we hope that it will provide clear signposting and actionable advice to consumers and, as set out in Chapter 7, we hope it will be expanded. However, the service addresses only one issue: energy efficiency. A broader communications campaign to address other issues in this space—such as how we travel and what we eat—is urgently required. This campaign, as part of the public engagement strategy we recommend in Chapter 3, should communicate the need for change and help to develop a shared positive vision; provide the public with the information needed to make green choices; shift social norms; develop policies collaboratively and engender support for the changes that will be needed to reach net zero and achieve the UK’s environmental goals.**

---

501 [Q 153](#) (Greg Hands MP)

502 HM Government, ‘Find ways to save energy in your home’: <https://www.gov.uk/improve-energy-efficiency> [accessed 5 September 2022]

503 [Q 155](#) (Chris Thompson)

504 [Q 112](#) (Tim Lord)

505 [Q 110](#) (Tim Lord)

506 [Q 92](#) (Prof Jillian Anable)

507 Written evidence from Ms Pauline Element ([CCE0049](#)) and the Humanist Climate Action ([CCE0071](#))

296. *As part of the public engagement strategy that we call for in Chapter 3 by April 2023, the Government should:*
- (a) *Provide clear, consistent and actionable information that enables the public to make informed choices about how we travel, what we eat and buy, and how we heat our homes;*
  - (b) *Develop positive messaging which emphasises the co-benefits of changes and uses stories about individuals already making changes;*
  - (c) *Work through trusted sources such as scientists and community leaders; and*
  - (d) *Tailor messaging to specific audiences to ensure it is effective and inclusive.*
297. *We recommend the Government significantly scale up its spending on public communications campaigns to reflect the scale of the challenges we face arising from climate change and environmental damage. Communications on behaviour change for climate and environmental goals should be prioritised in the Government Communications Plan for 2022–2023.*
298. *The Government should develop a monitoring process to evaluate the effectiveness of the new energy advice service to ensure that lessons can be learnt from the initiative for future behaviour change interventions.*

### **The information environment**

299. The broader information environment, including broadcasting, advertising and social media, often contains contradictory, confused and inaccurate messages about behaviour change for climate and environmental goals.<sup>508</sup> Moreover, several witnesses emphasised the critical role the media has to play in information provision, for example the British Retail Consortium argued: “Influencing behaviour change at the scale necessary to shift to lower carbon lifestyles requires consistent, UK-wide behaviour change support including campaigns reaching homes, classrooms and all media.”<sup>509</sup>
300. Of concern, in their submission, the Department for Digital, Culture, Media & Sport (DCMS) told us they do not have any policy interventions to promote behaviour change for climate change and the environment, nor does any of their work covering sustainability in this space incorporate regulations or fiscal measures.<sup>510</sup>

### **Broadcasting**

301. Submissions often described the power that broadcast television and radio has had in shaping behaviours across the population in other policy areas. For example, HIV testing rates doubled in 2021 after Channel 4 broadcast *It’s A Sin* and calls to women’s refuges rose 17 per cent during Helen Archer’s domestic abuse storyline in *The Archers* in 2016.<sup>511</sup> Similarly, submissions

<sup>508</sup> Written evidence from South Cambridgeshire District Council ([CCE0105](#))

<sup>509</sup> Written evidence from the British Retail Consortium ([CCE0042](#))

<sup>510</sup> Written evidence from the Department for Digital, Culture, Media & Sport ([CCE0065](#))

<sup>511</sup> Written evidence from Picture Zero Productions ([CCE0055](#))

suggested David Attenborough's *Blue Planet II* changed the national conversation about single-use plastics.<sup>512</sup>

302. Dr Spaiser and Prof Leston-Bandeira suggested the Government could collaborate with broadcasters to promote new norms in response to the climate crisis, for instance through the depiction of role models in TV shows, and through the creation of educational and news content to close the knowledge gap.<sup>513</sup> Students on the Committee's youth engagement programme suggested the Government should collaborate with social media influencers to develop communications about behaviour change for climate and environmental goals.
303. However, Mr Smith emphasised that often shifts in behaviour that are thought to be driven by media content take place in the context of legislative change, as was the case with Helen Archer's domestic abuse storyline which was informed by the passage of coercive control measures in the Serious Crime Act 2015.<sup>514</sup> He explained the media does not operate in a vacuum, stating: "Broadcasting and content work much better if audiences can see that there is a clear policy that supports what they are saying."<sup>515</sup>

### *Advertising*

304. Advertising has the power to influence consumer behaviour on a large scale through normalising "green" behaviours.<sup>516</sup> The Government can influence markets through regulatory signals, which, in turn, shape advertising. For example, the Advertising Association noted that there has been a shift in car adverts since the Government set a deadline for the end to sales of new petrol and diesel cars by 2030, outlining that: "TV ad spend on the promotion of hybrid, electric and alternative [cars] has risen from an 8 per cent share in 2018 to 70 per cent in 2021."<sup>517</sup>
305. However, although electric and hybrid vehicles are taking up an increasing portion of advertisements for private cars, Sustrans noted advertising of SUVs remains highly effective: "Research illustrates that the advertising of SUVs is rapidly increasing sales and market shares of larger, more polluting SUVs which is jeopardizing climate goals in the UK and worldwide."<sup>518</sup> Witnesses expressed concern about misinformation and greenwashing in advertising, particularly in relation to private vehicles. One Home told us: "There is a plethora of misleading information, in part generated by companies trying to green wash their products creating nonsense terms like self-charging hybrids."<sup>519</sup> Advertising of investment funds is also susceptible to greenwashing, as the UK Sustainable Investment and Finance Association (UKSIF) noted.<sup>520</sup> More generally, a review by the Competition and Markets Authority (CMA), the competition regulator in the UK, and other global

---

512 *Ibid.*, [Q 128](#) (Steve Smith)

513 Written evidence from Dr Viktoria Spaiser and Prof Cristina Leston-Bandeira, University of Leeds ([CCE0016](#))

514 [Q 128](#) (Steve Smith)

515 *Ibid.*

516 Written evidence from the Advertising Association ([CCE0114](#)) and World Animal Protection ([CCE0041](#))

517 Written evidence from the Advertising Association ([CCE0114](#))

518 Written evidence from Sustrans ([CCE0070](#))

519 Written evidence from One Home ([CCE0045](#))

520 Written evidence by UK Sustainable Investment and Finance Association ([CCE0028](#))

authorities found that 40 per cent of green claims made online could be misleading.<sup>521</sup>

306. There are numerous organisations scrutinising and regulating the advertising industry, including the CMA, the Trading Standards Services and other sector-specific bodies, but the primary regulator is the Advertising Standards Authority (ASA). Evidence we received from the ASA noted “ad regulation needs to play its part in working towards agreed climate goals”.<sup>522</sup> Furthermore, the ASA suggested that if the signal is sent from Government and experts that consumer behaviour change is key to achieving net zero, the advertising industry will require greater regulatory scrutiny in future.<sup>523</sup> The CMA published the “Green Claims Code” on 2 September 2021 to help businesses comply with the law and prevent misleading environmental claims.<sup>524</sup> The Green Claims Code is a guidance document for businesses, not legal advice. In their submission, the CMA suggested that to tackle misleading advertising the Government should consider:

- “legislating to create standardised definitions of commonly-used environmental terms, to which businesses must adhere in marketing and labelling their products;
- confirming in legislation a requirement for mandatory disclosure of certain information (such as environmental impact, recyclability, repairability and durability);
- legislating to require businesses to provide better environmental information to their business customers;
- adding misleading and/or unsubstantiated environmental claims to the list of banned practices under consumer law;
- extending consumer protection remedies to address the harm to the environment caused by commercial practices directed at consumers.”<sup>525</sup>

307. Beyond organisations like the ASA, actors on different scales can play a role in regulating and scrutinising the advertising industry. The New Weather Institute and Adfree Cities told us several English local councils are developing policies which would restrict the advertising of products which have high carbon or environmental footprints.<sup>526</sup>

### *Social media*

308. Professor Alison Anderson, Professor of Sociology at University of Plymouth, told us young people are mostly finding information about climate change and the environment outside of the formal education system, particularly from social media platforms such as TikTok and Instagram.<sup>527</sup> Students

---

521 Written evidence from the Competition and Markets Authority (CCE0101). Competition and Markets Authority, ‘Global sweep finds 40% of firms’ green claims could be misleading’ (28 January 2021): <https://www.gov.uk/government/news/global-sweep-finds-40-of-firms-green-claims-could-be-misleading> [accessed 7 September 2022]

522 Written evidence from the Advertising Standards Authority (CCE0027)

523 *Ibid.*

524 Written evidence from the Competition and Markets Authority (CCE0101), Competition and Markets Authority, ‘Greenwashing: CMA puts business on notice’ (20 September 2021): <https://www.gov.uk/government/news/greenwashing-cma-puts-businesses-on-notice> [accessed 7 September 2022]

525 Written evidence from the Competition and Markets Authority (CCE0101)

526 Written evidence from the New Weather Institute and Adfree Cities (CCE0015)

527 Written evidence from Prof Alison Anderson (CCE0058)

on the Committee’s youth engagement programme echoed this point.<sup>528</sup> Humanist Climate Action said that social media influencers could be used to reach “those not accessible via more traditional route[s]” and highlighted the importance of inclusivity.<sup>529</sup>

309. Several witnesses expressed concern about the spread of misinformation—incorrect or misleading information—and disinformation—deliberately deceptive information—related to climate change and the environment on social media. Carnegie UK described research carried out by the Institute for Strategic Dialogue (ISD), which compared the levels of engagement on social media platforms generated by reliable scientific organisations and climate sceptic actors respectively and found that the posts from the latter frequently received more traction and reach than the former. Carnegie UK explained:

“In the fortnight over which COP26 took place, sceptic content garnered 12 times the level of engagement of authoritative sources on the platform; and 60 per cent of the “sceptic” posts they analysed could be classified as actively and explicitly attacking efforts to curb climate change.”<sup>530</sup>

310. Witnesses had several suggestions as to how misinformation and disinformation about climate change and the environment on social media could be tackled. Mr Smith suggested traditional broadcasters—like the BBC—must play an important role as “trusted sources” in a landscape of disinformation online.<sup>531</sup> Carnegie UK expressed concern that the Government’s Online Safety Bill “does little to tackle climate change information”, and proposed amendments to bring climate change disinformation into the scope of the draft Bill in a “proportionate manner”.<sup>532</sup>
311. **There is great potential to normalise behaviours associated with reduced greenhouse gas emissions and environmental impacts—including public transport use and active travel—through positive representations in broadcast television, advertising and on social media. However, at present aspects of the media environment run in a contrary direction, for example the proportion of advertising devoted to SUVs (Sports Utility Vehicles) and disinformation and misinformation on climate change available on social media.**
312. **Despite welcome improvements in guidance for businesses around misleading environmental claims, more could be done to counter greenwashing, build consumer trust and ensure companies who market products and services associated with lower greenhouse gas emissions and environmental impacts can compete fairly.**
313. ***The Government should introduce measures to regulate advertising of high-carbon and environmentally damaging products. We were persuaded by arguments made by the Competition and Markets Authority (CMA). As a priority, the Government should create standardised definitions of commonly used environmental terms***

528 More information about the Committee’s youth engagement programme is provided in paragraph 326. A high-level summary of the discussion we had with students on the Committee’s youth engagement programme is annexed to this report.

529 Written evidence from the Humanist Climate Action ([CCE0071](#))

530 Written evidence from Carnegie UK ([CCE0010](#))

531 [Q 127](#) (Steve Smith)

532 Written evidence from Carnegie UK ([CCE0010](#))

*to which businesses must adhere in marketing and labelling their products, and add misleading and/or unsubstantiated environmental claims to the list of banned practices under consumer law.*

314. *The Government should assess the ways that misinformation and disinformation about climate change and the environment online can be challenged.*

### Public engagement

315. People will not make choices to support the achievement of climate and environmental goals unless we are engaged effectively, understand the rationale for actions, and policies enable these to happen.<sup>533</sup> Ms Kmietowicz emphasised the need to start a dialogue with the public about behaviour change for climate and environmental goals to “bring them on board and create a joint shared narrative”, stating: “We are trying to achieve the creation of a social mandate for change here.”<sup>534</sup> Mr Park agreed there needs to be “sufficient political capital” for behaviour change to reach climate and environmental goals, explaining that the development of such political capital “is a big task for public engagement and delivering a narrative that everyone can get behind”.<sup>535</sup>
316. The Government has statutory obligations to engage with the public and provide education on environment and climate change. Public engagement is required by the Aarhus Convention, to which the UK is a signatory, and the Paris Agreement, which calls for public participation and climate empowerment to be led by governments.<sup>536</sup> The CCC’s 2022 Progress Report, published on 29 June, notes the Government’s recognition in the Net Zero Strategy that the involvement of people will be required to achieve climate and environmental goals, but suggests that, to date, the Government has taken a light-touch approach to public engagement.<sup>537</sup>
317. Public engagement must involve all demographics through inclusive tailored messaging.<sup>538</sup> Climate Outreach told us:
- “There continue to be groups that feel socially and economically excluded from the wider conversations about the country’s progress in general areas, but particularly in decarbonisation and wider climate action. Post-industrial areas, ‘red wall’ constituencies, and others, need to feel that there are genuine and meaningful efforts to understand their needs and to engage with them on the path forward. Engaging them (as well as the typically more engaged segments of the population) will be a real opportunity for transformation.”<sup>539</sup>
318. Deliberative approaches—such as the use of citizens assemblies—are effective in engaging and educating people about climate and environmental issues. Prof Anable told us deliberative approaches are effective because

---

533 Written evidence from the Committee on Climate Change ([CCE0112](#))

534 [Q 8](#) (Ewa Kmietowicz)

535 [Q 3](#) (Toby Park)

536 [Q 15](#) (Dr Shanon Shah)

537 Climate Change Committee, *Progress in reducing emissions, 2022 Report to Parliament* (June 2022): <https://www.theccc.org.uk/publication/2022-progress-report-to-parliament/#downloads> [accessed 7 September 2022]

538 Written evidence from Picture Zero Productions ([CCE0055](#)) and from Prof Alison Anderson ([CCE0058](#))

539 Written evidence from Climate Outreach ([CCE0111](#))

they allow people to express frustrations about perceived unfairness, to get a conversation going about these frustrations and then have constructive conversations about potential policy options.<sup>540</sup> Witnesses suggested deliberative approaches encourage constructive engagement and can deliver more rapid change, increased inclusivity and fairness, while potentially addressing interlinked social challenges.<sup>541</sup>

### *Climate Assembly UK*

319. The Climate Assembly UK (CAUK) was established by six select committees in the House of Commons in June 2019 “to understand public preferences on how the UK should tackle climate change because of the impact these decisions will have on people’s lives”.<sup>542</sup> Participants in CAUK held a series of discussions with lead experts from January to March 2020, after which they published their report titled *The Path to Net Zero*.<sup>543</sup>
320. We held a meeting with four participants in the CAUK as part of this inquiry.<sup>544</sup> In our meeting, the CAUK participants reflected on their experience of the deliberative process and agreed it had been a very positive experience which had encouraged them all to take steps in their own lives to be greener. In discussing this inquiry, the participants recommended that fairness needed to be considered in behaviour change interventions, to recognise the different impacts that policies could have on different demographics and socioeconomic groups. They reiterated some of the recommendations of the Climate Assembly, for example introducing a levy on frequent flyers and taking account of the larger carbon footprint of higher income households.
321. A documentary titled *The People Versus Climate Change* was produced to follow the experience of participants in the Climate Assembly. Reflecting on the documentary, Climate Outreach told us:

*“The People Versus Climate Change was an extremely powerful and pioneering net zero public engagement tool. It has helped take the Assembly, and the issues discussed within it, to a wider audience than the 108 assembly members, and provides an important illustration of the principles of people-first/human story-led engagement on what net zero means.”*<sup>545</sup>

Mr Smith, the producer of the documentary, agreed the film was a highly effective engagement tool in itself because it depicted and created “peer to peer” learning.<sup>546</sup>
322. However, in their reflections on the Climate Assembly experience, some of the CAUK participants said they felt the Government had not given sufficient attention to the findings in their report. Some participants also suggested the Assembly process as a whole did not have a great deal of Government buy-in,

---

540 Q 92 (Prof Jillian Anable)

541 Written evidence from the Global Sustainability Institute, Anglia Ruskin University (CCE0056), Q 72 (Dr Emily Gray)

542 Climate Assembly UK, *The path to net zero*: <https://www.climateassembly.uk/report/read/index.html> [accessed 7 September 2022]

543 *Ibid.*

544 A high-level summary of the discussion we had with participants in the Climate Assembly UK is annexed to this report.

545 Written evidence from Climate Outreach (CCE0111)

546 Q 127 (Steve Smith)

particularly in comparison to international examples like the French citizens' assembly, which had been commissioned by the Government of France.

*Deliberative approaches on different scales*

323. Reflecting on the French citizens' assembly, then Minister of the Ecological Transition Ms Pompili noted the importance of President Macron's personal involvement in the process, suggesting: "His patronage gave the convention a source of legitimacy, and gave visibility and media impact to the work of the citizens."<sup>547</sup> She told us that the proposals drawn up by the French citizen's assembly "served as the basis of legislation", in the form of the Climate and Resilience Bill, which was adopted by the French Parliament in July 2021.<sup>548</sup> On this point, the Global Sustainability Institute suggested that for deliberative approaches to be meaningful, the views of participants need to be able to influence policy outcomes in tangible ways, stating: "Mechanisms for influence cannot be an afterthought, but must be designed into programmes from the start."<sup>549</sup>
324. Evidence we received suggested the use of climate assemblies for public engagement is becoming more popular at different levels of governance. For example, the District Councils' Network told us many of their members are convening climate assemblies and summits of citizens "to discuss how the community should react to climate change".<sup>550</sup> The Scottish Government described the outcomes of the Scotland Climate Assembly process which recently concluded, stating: "As a part of the Scottish Government's response to the Assembly, we have committed to exploring these further with the UK Government."<sup>551</sup>

*Engaging young people*

325. Engaging young people will be vital in achieving climate and environmental goals through behaviour change. Assessing the narratives surrounding young people and climate change, Prof Anderson told us:
- "Young people feel that narratives that frame them as uninformed about the issues, but place responsibility on them for tackling climate change, are unhelpful. Instead, they suggest that the narrative of Government projects relating to youth engagement with climate change should be sensitised to the specific barriers young people face."<sup>552</sup>
326. In January 2021 the Committee set up a youth engagement programme. We invited schools from across the UK to apply to join the programme for a calendar year and recruited six schools from all four UK nations.<sup>553</sup> During this inquiry, we have sought the opinions of students on the programme. We spent one meeting discussing feedback from the schools who had each run lessons or after-school sessions on behaviour change for climate and environmental goals. We also held a meeting with students from the

---

547 [Q 23](#) (Minister Barbara Pompili)

548 *Ibid.*

549 Written evidence from the Global Sustainability Institute, Anglia Ruskin University ([CCE0056](#))

550 Written evidence from the District Councils' Network ([CCE0107](#))

551 Written evidence from the Scottish Government ([CCE0080](#))

552 Written evidence from Prof Alison Anderson ([CCE0058](#))

553 Environment and Climate Change Committee, 'Six schools from across the UK selected to take part in youth engagement programme' (13 January 2022): <https://committees.parliament.uk/work/1621/mobilising-action-on-climate-change-and-environment-behaviour-change/news/160257/six-schools-from-across-the-uk-selected-to-take-part-in-youth-engagement-programme/>

six schools to hear questions that they would ask government ministers about behaviour change for climate and environmental goals if they were members of our Committee.<sup>554</sup> This engagement with students informed our questioning of government ministers, Mr Eustice and Mr Hands, in the concluding sessions of this inquiry and has helped to shape the conclusions and recommendations in this report.

327. **We were heartened to hear the positive experiences of participants in the UK Climate Assembly and commend this use of deliberative engagement, though we are concerned that the Government may not have taken the Climate Assembly’s report findings seriously. Citizens’ assemblies and other forms of public engagement, such as those tailored to young people, will play a significant role in supporting behaviour change for climate and environmental goals. Engaging the public and strengthening understanding in this space will improve the legitimacy and effectiveness of behaviour change interventions.**
328. *As part of the public engagement strategy that we have called for, the Government should embed deliberative methods, such as citizens assemblies, in climate change and environment policy design from local to national levels to shape a shared vision of net zero and environmental sustainability. In the public engagement strategy, the Government should include specific methods to engage young people, through mechanisms such as social media campaigns, young citizens’ assemblies and youth advisory panels.*

### Education

329. Submissions suggested young people would like to learn more about climate change and the environment in formal settings, but they often have to get information from social media platforms rather than the classroom.<sup>555</sup> In a survey taken in 2021, while 58 per cent of young people aged 9–18 said that they felt they had learnt “a lot or quite a bit” about the environment at school, 71 per cent said they were interested in learning more about the environment.<sup>556</sup>
330. Mr Poots told us that as part of a three-year project which commenced in December 2020, Northern Ireland’s DAERA is “providing funding to Keep Northern Ireland Beautiful [an environmental charity] to develop and roll out carbon literacy materials for post-primary Eco-Schools and community groups with the aim of driving behaviour change”.<sup>557</sup> Similarly, Ms Pompili explained that in order to raise awareness on climate-related issues among young people, an article in France’s new climate legislation requests that environmental education be provided in all schools.<sup>558</sup>
331. The Department for Education (DfE) published a Sustainability and Climate Change Strategy on 21 April which aims to improve “the sustainability of the environment in and around education settings” and “the knowledge and

---

554 A high-level summary of the discussion we had with students on the Committee’s youth engagement programme is annexed to this report.

555 Written evidence from Prof Alison Anderson ([CCE0058](#))

556 *Ibid.*

557 Written evidence from Edwin Poots MLA ([CCE0082](#))

558 [Q 23](#) (Minister Barbara Pompili)

understanding of children and young people”.<sup>559</sup> In their submission, the Department told us the national curriculum “includes topics related to climate change and sustainability in core learning outcomes”.<sup>560</sup> In the Strategy, the Government also set out plans to introduce a Natural History GCSE by 2025, which aims to “enable young people to explore the world by learning about organisms and environments, environmental and sustainability issues, and gain a deeper knowledge of the natural world around them”.<sup>561</sup> However, Prof Anderson told us the Strategy needs to “go further” to ensure young people are given “a broad climate education that is integrated within all subject areas in an interdisciplinary fashion”.<sup>562</sup>

332. **We strongly welcome the inclusion of environmental and sustainability issues in the syllabus of the forthcoming Natural History GCSE. However, there is also a need for young people to be educated about the science of climate change and actions they can take to support meeting climate and environmental goals, which must be embedded across the curriculum.**
333. *The Department for Education’s Sustainability and Climate Change Strategy should be reviewed to ensure every opportunity has been taken through both formal and informal education and communications and the school environment to provide young people with the knowledge and skills to make life and career choices to support environmental and climate goals.*

---

559 DfE, ‘Sustainability and climate change strategy’ (21 April 2021): <https://www.gov.uk/government/publications/sustainability-and-climate-change-strategy> [accessed 7 September 2022]

560 Written evidence from the DfE (CCE0066)

561 DfE, ‘The new Natural History GCSE and how we’re leading the way in climate and sustainability education - your questions answered’ (25 April 2022): <https://educationhub.blog.gov.uk/2022/04/25/the-new-natural-history-gcse-and-how-were-leading-the-way-in-climate-and-sustainability-education-your-questions-answered/> [accessed 7 September 2022]

562 Written evidence from Prof Alison Anderson (CCE0058)

## CHAPTER 9: THE GOVERNMENT'S APPROACH AND ROLE

*“Our experience of interacting with No. 10—and I will answer this as candidly as I can—is that there is a strong vision and that emerged in the net zero strategy, but it is a vision of techno-optimism. There is perhaps a narrow understanding of behaviour change and an aversion to finger-wagging and telling people what not to do.”*

*Toby Park, Head of Energy, Environment & Sustainability at the Behavioural Insights Team*

334. The Government's approach to behaviour change for climate and environmental goals was presented in evidence we received from government departments as part of this inquiry, and in other policy documents such as the Net Zero Strategy and the 25 Year Environmental Plan. Witnesses appraised the Government's overall approach as well as the Government's role in coordinating the work of both government departments *and* other actors on different levels—including civil society, local authorities and businesses.

### The Government's overall approach

335. Witnesses identified a number of areas in which they perceived the Government's overall approach to behaviour change to meet climate and environmental goals to be inadequate: leadership, the policy design process and a joined-up, systems approach.

### Leadership

336. There was a consensus across much of the evidence that the inadequate leadership role played by the Government in achieving behaviour change for climate and environmental goals can undermine public willingness to take action on an individual level.
337. Witnesses suggested the Government's overall approach is characterised by tensions between its targets and its actions. The gap between the two undermines the Government's leadership in this space. Mr Hopkins told us there needs to be a clear steer and narrative from the Government, rather than a situation in which the Government says, “Yes, climate change is the challenge of our time,” and then “expands airports and opens new coal and oilfields”.<sup>563</sup> Similarly, the Global Sustainability Institute at Anglia Ruskin University expressed concern that “the recent decision to reduce taxes on domestic flights in the UK sends a very clear message that the government is not serious about reducing transport emissions, which risks fatally undermining any behaviour change campaigns around transport”.<sup>564</sup> Green Alliance echoed this point in their submission, stating: “Government consistency is key.”<sup>565</sup> Similarly, Hubbub suggested announcements from the Government about investing in coal and expanding airports “undermine the overall narrative” and “are likely to reduce support for individual behaviour change”.<sup>566</sup> Several students on the Committee's youth engagement programme also held this view.

<sup>563</sup> Q 14 (Rob Hopkins)

<sup>564</sup> Written evidence from the Global Sustainability Institute, Anglia Ruskin University (CCE0056)

<sup>565</sup> Written evidence from Green Alliance (CCE0051)

<sup>566</sup> Written evidence from Hubbub (CCE0060)

338. Many witnesses suggested the Government should take on a leadership role not only through communicating what is necessary in terms of behaviour change to meet climate and environmental goals, but also through utilising its unique position to shape the choice environment from the top down through regulation and taxation.<sup>567</sup> Picture Zero Productions told us although the Government “is starting to send signals that business as usual needs to change through the pledges they are making on emission reductions”, these signals need to be strengthened with clear policies.<sup>568</sup>
339. Some submissions described instances in the past when the Government has taken on a greater leadership role in behaviour change for climate and environmental goals and lessons that can be drawn from the impacts of this. For example, Asthma UK and the British Lung Foundation suggested various vehicle scrappage schemes whereby older, polluting cars could be traded for grants from the Government demonstrated that “when governments take the lead and make it simple for people to shift away from private vehicles, then compliance and behaviour change comes quickly”.<sup>569</sup> Similarly, Humanist Climate Action described the introduction of a plastic carrier bag charge by the Government as an example of government leadership in this space having “a wide and positive impact involving lifestyle change”.<sup>570</sup> Mr Eustice referred to this measure in his oral evidence to the Committee.<sup>571</sup>
340. The public expect the Government to “take the lead on climate change”, because people often feel disempowered to tackle climate change and environmental damage on an individual level, but many do not believe the Government is taking its role seriously enough or taking adequate steps to tackle the crisis.<sup>572</sup> Dr Eichhorn told us: “77 per cent of the UK public think the UK government has a high degree of responsibility in addressing the climate crisis.”<sup>573</sup> Similarly, Dr Gray emphasised that around three-quarters of the public say that government should be taking action on climate and the environment “first and foremost”.<sup>574</sup> Prof Poortinga echoed this point, stating “individuals do not feel capable to deal with [climate change]” because it is often seen as a global issue over which we have very little control, which suggests “the involvement of government and international bodies is needed”.<sup>575</sup>
341. Yet, under half of the public think the Government is taking action at present.<sup>576</sup> Dr Gray explained: “There is a gap between people’s expectations of government and the action that they see being taken at the moment.”<sup>577</sup> Similarly, the consumer association Which? outlined that 46 per cent of the UK public think the Government is “doing too little to support consumers to make more sustainable choices”.<sup>578</sup>

---

567 [QQ 1, 5](#) (David Joffe) and written evidence from Picture Zero Productions ([CCE0055](#))

568 Written evidence from Picture Zero Productions ([CCE0055](#))

569 Written evidence from Asthma UK and the British Lung Foundation ([CCE0012](#))

570 Written evidence from the Humanist Climate Action ([CCE0071](#))

571 [Q 130](#) (George Eustice MP)

572 Written evidence from Dr Jan Eichhorn ([CCE0022](#)) and [Q 60](#) (Prof Wouter Poortinga)

573 Written evidence from Dr Jan Eichhorn ([CCE0022](#))

574 [Q 60](#) (Dr Emily Gray)

575 [Q 60](#) (Prof Wouter Poortinga)

576 [Q 60](#) (Dr Emily Gray)

577 *Ibid.*

578 Written evidence from Which? ([CCE0039](#))

*Policy design processes*

342. Many witnesses highlighted problems with the Government's approach to policy design for behaviour change interventions, suggesting that the Government does not use behavioural models and frameworks effectively or apply long-term thinking in policy design, and does not have a process in place to evaluate and learn from past efforts.<sup>579</sup>
343. Mr Park emphasised the importance of using behavioural frameworks and models in designing policy for behaviour change for climate and environmental goals, suggesting:
- “It does not need to have the clever psychology, cognitive biases and so on generally associated with nudging, but the basic, good hygiene practice of applying a behavioural lens to policy so that it is designed for real human beings who are busy, have limited attention and willpower and do not always want to wade through complex communications, systems, customer journeys and so on ... There is still a huge amount of scope to routinise that more across government.”<sup>580</sup>
344. Mr Restorick expressed concern the Government does not commit to policies for behaviour change in the long-term and said he “could list initiative after initiative that consecutive governments have started; they have started to work, and then they have gone”.<sup>581</sup> Similarly, a submission from One Home argued: “Campaigns often have a short-term horizon so momentum build[s], lessons are learnt then a new minister arrives and the campaign is closed.”<sup>582</sup>
345. Several submissions suggested the Government does not have a process in place to evaluate past behaviour change efforts in order to consolidate institutional knowledge. The UCL Centre for Behaviour Change said the Government could improve its approach through developing more consistent plans for evaluating interventions.<sup>583</sup> Similarly, the CAST Consortium said there should be “clarity on what has and what hasn't worked to date” so that people and institutions can learn from past efforts.<sup>584</sup>

*A joined-up, systems approach*

346. Evidence suggested the Government lacks a joined-up, systems approach to behaviour change. The CAST Consortium argued the Government needs “a holistic and systemic approach which involves both ‘carrots’ and ‘sticks’”, suggesting that policy improvements can be made through “greater use of co-design and systems thinking approaches”.<sup>585</sup> The IPPR agreed addressing the climate and nature crises requires “collective, systemic, and interrelated action” with “system wide coordination”.<sup>586</sup> Similarly, WSP told us looking ahead, “Behaviour change will not be linear and based on a single activity,” instead they suggested it will be “more complex, and will require cross collaboration, system thinking and finance”.<sup>587</sup> Mr Joffe drew

---

579 [Q 76](#) (Trewin Restorick) also written evidence from One Home ([CCE0045](#)), the CAST Consortium ([CCE0048](#)) and the UCL Centre for Behaviour Change ([CCE0033](#))

580 [Q 2](#) (Toby Park)

581 [Q 84](#) (Trewin Restorick)

582 Written evidence from One Home ([CCE0045](#))

583 Written evidence from the UCL Centre for Behaviour Change ([CCE0033](#))

584 Written evidence from the CAST Consortium ([CCE0048](#))

585 *Ibid.*

586 Written evidence from the IPPR ([CCE0089](#))

587 Written evidence from WSP ([CCE0087](#))

attention to the importance of a joined-up approach specifically in managing the interaction between “the behavioural nudge aspect and the incentives to make the changes”, and suggested: “The Treasury needs some support and maybe a little nudge to go a bit further on some of these issues.”<sup>588</sup>

347. Many witnesses argued the Government’s approach to achieving climate and environmental goals is excessively reliant on as yet undeveloped technologies to reduce emissions and does not pay due attention to the role of individual-level behaviour change. Mr Park set out this view:

“Our experience of interacting with No. 10—and I will answer this as candidly as I can—is that there is a strong vision and that emerged in the net zero strategy, but it is a vision of techno-optimism. There is perhaps a narrow understanding of behaviour change and an aversion to finger-wagging and telling people what not to do.”<sup>589</sup>

348. In their submission, the UCL Centre for Behaviour Change expressed a similar concern that policies in the Net Zero Strategy “place too much emphasis on technological innovations without enough consideration of the behaviour changes needed to achieve these”.<sup>590</sup> Consistent with this, the House of Commons Public Accounts Committee recently concluded in their review of the Government’s progress on delivering net zero: “Government is relying heavily on rapidly changing consumer behaviours together with technological innovations driving down the costs of green options but it is not clear how it will support and encourage consumers to purchase greener products.”<sup>591</sup>
349. The CAST Consortium also expressed concern that despite including a chapter on public engagement and green choices, the Net Zero Strategy had “not acknowledged the wide reaching social and lifestyle changes” which would be required in combination with other factors, such as technologies, to reach net zero.<sup>592</sup> Ms Terry told us the CCC had “very clearly mapped out the pathways that are needed to reach net zero”, but despite these clear pathways, there were “huge policy gaps, huge valleys where there is no implementation process at all”.<sup>593</sup> Ms Terry gave examples of insulation and electric car charging as areas where there are gaps.<sup>594</sup>

### *The Government on their overall approach*

350. Evidence received from departments suggests the Government’s approach focuses on enabling individuals to make green choices should people wish to do so, rather than actively trying to shape the choice environment through behaviour change interventions.
351. Across the submissions received from government departments, there was some recognition that individuals may need to play a role in achieving climate and environmental goals, but this was often countered with an emphasis

---

588 [Q 8](#) (David Joffe)

589 [Q 4](#) (Toby Park)

590 Written evidence from the UCL Centre for Behaviour Change ([CCE0033](#))

591 Committee of Public Accounts, *Achieving Net Zero: Follow up* (Forty-First Report, Session 2021–2022, HC 642)

592 Written evidence from the CAST Consortium ([CCE0048](#))

593 [Q 80](#) (Angela Terry)

594 *Ibid.*

on the importance of maintaining freedom of choice for the individual. For example, BEIS told us:

“Achieving the Government’s net zero target will require not only changes to our energy systems and infrastructure, but changes to everyday life such as the way we travel, heat our homes, and save our money. To reach net zero, everyone will need to play their part.”<sup>595</sup>

However, in the same submission, BEIS also explained:

“The Government wants to support the public in adopting sustainable behaviours in a way that supports choice and maintains freedoms. We recognise that the best way to do this is to go with the grain of existing behaviour and trends.”<sup>596</sup>

352. A submission from Defra mirrored the position above and also said the Government aims to make “more sustainable choice as easy and straightforward as possible”, but wants to do so in a way “that supports choice and maintains freedoms”.<sup>597</sup> The Treasury and the Cabinet Office both made a similar point, as did DfT who also added: “This is not about stopping people doing things: it is about doing the same things differently.”<sup>598</sup> The Cabinet Office also placed a focus on enabling individuals to actively choose green should people wish to do so, through making greener options “significantly easier, clearer and cheaper”.<sup>599</sup>

353. In an evidence session with Mr Hands, government sentiment around making behaviour change for climate and environmental goals easy, while at the same time going with the grain of existing behaviours was reinforced. He told us that the Government’s focus was “to make the act of choosing zero or low-carbon alternatives significantly easier, clearer and cheaper”, suggesting that the approach was focused on “supporting people to make green choices ... not on stopping them doing things.”<sup>600</sup> He echoed the view that the best way to approach behaviour change was “to go with the grain of existing behaviour and trends”, summarising: “Wherever possible, the approach is more carrot than stick.”<sup>601</sup> Mr Hands did not address behaviour change in areas where there are currently no “clean” technological alternatives or options, such as fashion, which may require reductions in consumption.

354. However, Mr Eustice described the use by government of upstream policy levers, such as regulatory measures, which go beyond making green choices easy to change behaviour:

“I would challenge to say that anyone has not realised that they now have a charge for buying a carrier bag in a supermarket. If they were observant, they would notice that you no longer really see plastic cutlery on offer. People have reverted to the use of wood instead. They are changing their behaviours because we have introduced regulatory changes that make that easier or, in some cases, compulsory.”<sup>602</sup>

---

595 Written evidence from BEIS ([CCE0059](#))

596 *Ibid.*

597 Written evidence from Defra ([CCE0068](#))

598 Written evidence from the Treasury ([CCE0085](#)), the Cabinet Office ([CCE0067](#)) and DfT ([CCE0062](#))

599 Written evidence from the Cabinet Office ([CCE0067](#))

600 [QQ 148, 153](#) (Greg Hands MP)

601 [Q 148](#) (Greg Hands MP)

602 [Q 133](#) (George Eustice MP)

355. Mr Eustice told us behaviour change is considered by government across a range of policy areas, stating that it is unhelpful to treat behaviour change “as though it is a sideshow or in a silo”.<sup>603</sup> This holistic approach to behaviour change across policymaking does not extend to communications, as he confirmed that an information campaign would not be part of the Government’s approach.<sup>604</sup>
356. The Government published the Net Zero Strategy on 19 October 2021 to present their policies and proposals for decarbonising all sectors of the UK economy to meet the net zero target by 2050. The Net Zero Strategy contained six principles underpinning green choices, which were referenced in evidence we received from BEIS, DfT and Defra:
- (1) “Minimise the ‘ask’ by sending clear regulatory signals;
  - (2) Make the green choice the easiest;
  - (3) Make the green choice affordable;
  - (4) Empower people and businesses to make their own choice;
  - (5) Motivate & build public acceptability for major changes; and
  - (6) Present a clear vision of how we will get to net zero and what the role of people and business will be”.<sup>605</sup>
357. A submission from n0co2.org referred to a report published by the Government alongside the Net Zero Strategy, which went further than setting out the six principles underpinning green choices—the report explored behaviour change for net zero.<sup>606</sup> The report was then swiftly withdrawn.<sup>607</sup> This withdrawn report—commissioned by BEIS and produced by the BIT—was titled *Net Zero: principles for successful behaviour change initiatives* and included reference to the potential impact that levies on high-carbon food and frequent fliers could have on achieving net zero. Speaking about the removal of the report from the government website, a government spokesperson said, “This was an academic research paper, not government policy ... we have no plans whatsoever to dictate consumer behaviour in this way.”<sup>608</sup>
358. **We have not found the Government’s current approach to enabling behaviour change to meet climate and environmental goals to be adequate to meet the scale of the challenge.**
359. **Of the six principles underpinning green choices outlined in its own Net Zero Strategy, the Government has failed to implement 5 and 6: to motivate and build public acceptability for major changes and to present a clear vision of how we will get to net zero and what the role of people and business will be. Nor has the Government consistently applied across the key areas where people and businesses will need to change behaviours to meet net zero and environmental**

---

603 [Q 130](#) (George Eustice MP)

604 [Q 133](#) (George Eustice MP)

605 Written evidence from BEIS ([CCE0059](#)), the DfT ([CCE0062](#)) and Defra ([CCE0068](#))

606 Written evidence from n0co2.org ([CCE0020](#))

607 *Ibid.*

608 ‘UK meat tax and frequent-flyer levy proposals briefly published then deleted’, *Guardian UK*, (October 2021): <https://www.theguardian.com/environment/2021/oct/20/meat-tax-and-frequent-flyer-levy-advice-dropped-from-uk-net-zero-strategy> [accessed 8 June 2022]

goals the remaining four principles—of sending clear regulatory signals, making the green choice the easiest, making the green choice affordable and empowering people and businesses to make their own choice.

360. The one element of consistency in departments' approaches to delivering the Net Zero Strategy—the principle of going with the grain of consumer choice—ignores the role that many government levers like regulation and taxation play in shaping markets and influencing social norms.
361. The Government's failure to date to put in place sufficient policies, resources and communications to enable change risks missing statutory climate targets and opportunities to improve health and wellbeing.
362. The public expect the Government to take a leadership role to enable behaviour change, but the Government's reticence to address key areas—such as what people eat, how we heat our homes, what we buy and how we travel—which is largely a result of a reluctance to be perceived as reducing freedom of choice, undermines individuals' willingness and ability to take action.
363. The Government is excessively reliant on large-scale and as yet undeveloped technologies to meet net zero targets. The evidence shows that the public expect leadership from the Government and can accept measures to adapt their behaviour to more sustainable patterns and reduced carbon-intensive consumption, as well as to adopt existing green technologies, if communicated clearly and properly supported.
364. *The Government should apply behavioural science to all its policies and initiatives. It should urgently review the Net Zero Strategy and policies and initiatives in place to deliver it and rectify where its six principles underpinning green choices are not being delivered.*
365. *As we note in Chapters 3 and 8, the Government should introduce a public engagement strategy to build support for helping people adopt new technologies and reduce carbon-intensive consumption in key areas where behaviour change is required. Net zero cannot be achieved without addressing both.*

## Coordination within Government

### *Machinery of Government*

366. There are several groups, boards and committees that are involved in coordinating climate change policy across government, but their remits and responsibilities are unclear, and their proceedings lack transparency.
367. There are two Cabinet Committees dedicated to climate policy and strategy. The Climate Action Strategy Committee (CAS) is chaired by the Prime Minister and considers “matters relating to the delivery of the UK’s domestic and international climate strategy”.<sup>609</sup> The Climate Action Implementation Committee (CAI) is chaired by the COP President and considers “matters

---

609 Written evidence from the Cabinet Office (CCE0067)

relating to the delivery of COP26, net zero and building the UK's resilience to climate impacts".<sup>610</sup> Information about the meetings of CAS and CAI—such as the minutes of proceedings and the frequency of meetings—is not publicly available.

368. In a letter to the then Prime Minister dated 29 November 2021, the House of Commons Liaison Committee asked when he had last chaired a meeting of the CAS and when the next meeting was due to take place.<sup>611</sup> In a response dated 15 December 2021, the then Prime Minister said: "It is a long-established practice under successive Governments that information about the discussions that have taken place in Cabinet and its Committees, and how often they meet, is not normally disclosed publicly."<sup>612</sup> The House of Commons Liaison Committee replied to the Prime Minister's letter of 15 December 2021 on 20 January, and described the lack of information available about CAS and its activities as "unsatisfactory", stating:

"Given the role that this Committee is intended to play in setting the strategic direction for the UK's efforts to combat climate change, and in particular its purpose in holding Departments to account, it is unsatisfactory that its activities should not be considered appropriate for scrutiny by select committees."<sup>613</sup>

369. To conclude our inquiry, we invited an official working with either or both CAS and CAI to attend an evidence session alongside ministers from BEIS and Defra to discuss the work of the Cabinet Committees in coordinating climate policy across Government, including behaviour change. In response to this invitation, the Cabinet Office said officials working with the Cabinet Committees do not have the relevant knowledge in this area. In the final evidence sessions for this inquiry, neither Mr Eustice nor Mr Hands provided further information about the proceedings of CAS and CAI. Mr Hands agreed to follow up points about the minutes and frequency of meetings of CAS and CAI by correspondence. In his follow-up letter sent on 20 June, he reiterated the statement made by the Prime Minister: "It is a long-established precedent that information about the discussions that have taken place in Cabinet and its Committees, and how often they have met, is not shared publicly."<sup>614</sup>
370. CAS and CAI are supported by official-level groups, including the Climate Change National Strategy Implementation Group (NSIG) and the cross-government Director General Group.<sup>615</sup> Defra explained that the Director General Group, chaired by the BEIS Director General for Net Zero and International, aims to "bring together officials from across Government, creating a whole system perspective, to support the delivery of significant

---

610 *Ibid.*

611 Letter from Sir Bernard Jenkin MP, Chair of the House of Commons Liaison Committee, to Rt Hon Boris Johnson MP, Prime Minister (29 November 2021): <https://committees.parliament.uk/publications/8040/documents/82812/default/>

612 Letter from Rt Hon Boris Johnson MP, Prime Minister to Sir Bernard Jenkin MP, Chair of the House of Commons Liaison Committee (15 December 2021): <https://committees.parliament.uk/publications/8583/documents/86675/default/>

613 Letter from Sir Bernard Jenkin MP, Chair of the House of Commons Liaison Committee, to Rt Hon Boris Johnson MP, Prime Minister (20 January 2022): <https://committees.parliament.uk/publications/8584/documents/86723/default/>

614 Letter from The Rt Hon Greg Hands MP, then Minister of State for Energy, Clean Growth and Climate Change to Baroness Parminter, Chair of the Environment and Climate Change Committee (20 June 2022): <https://committees.parliament.uk/publications/22836/documents/167724/default/>

615 Written evidence from the Cabinet Office (CCE0067) and Defra (CCE0068)

climate announcements”.<sup>616</sup> In a letter sent to the Committee on 11 April, BEIS described the work of the Director General Group as bringing together relevant Director Generals to “drive progress on net zero, alongside matters concerning climate adaptation, resilience, and international climate”.<sup>617</sup> In a follow-up letter sent to the Committee on 20 June, Mr Hands confirmed that the Director General Group meets monthly.<sup>618</sup>

371. Submissions to this inquiry by the Foreign, Commonwealth and Development Office (FCDO) and DHSC referred to the Behaviour Change for Net Zero Working Group. BEIS did not refer this group in their original submission for this inquiry, so we requested further information from BEIS as the lead department. In response, BEIS explained:

“The [Behaviour Change for Net Zero Working] Group was set up in April 2020 to discuss potential policies and proposals to be included in the Net Zero Strategy. It met between April 2020 and May 2021 and is no longer active. When it was running, its membership included junior civil servant representatives across government. Since it was established in April 2020, the group met roughly every six weeks until May 2021 when the last meeting took place. The group is no longer active. No minutes were kept from the meetings because it was an informal group with no decision-making power.”<sup>619</sup>

372. At present, the level of coordination between departments and across policy areas appears to be limited. Which? described their experience of cross-government coordination, suggesting it is “still too limited, and competing short and long-term priorities can delay progress”.<sup>620</sup> Ms Kmietowicz told us the Government needs to be more joined up in their policies, because many individual departments are “trying hard to move towards a decarbonisation pathway, but a lot of the purse strings are held by the Treasury”.<sup>621</sup> Sustrans made a similar point, expressing concern that “while funding and initiatives need to cross departments; presently they are typically siloed”.<sup>622</sup> The British Retail Consortium told us that consideration of behaviour change measures and policies is often “already happening” within certain government departments and agencies but suggested there needs to be “a strategic cross-department approach from the Government” to incorporate behaviour change considerations more widely.<sup>623</sup>
373. Several submissions described case studies which demonstrated a lack of cross-departmental coordination. Sustrans explained that in the policy document *Gear Change: A bold vision for cycling and walking* published by DfT on 28 July 2020, the Government set out its aim to make walking and cycling the natural choice for short journeys in cities and towns but the department responsible for the planning system, DLUHC, has been delivering “too many

---

616 Written evidence from Defra (CCE0068)

617 Letter from Rt Hon Kwasi Kwarteng MP, Secretary of State Department for Business, Energy & Industrial Strategy to Baroness Parminter, Chair of the Environment and Climate Change Committee (11 April 2021): <https://committees.parliament.uk/publications/22489/documents/165822/default/>

618 Letter from The Rt Hon Greg Hands MP, Minister of State for Energy, Clean Growth and Climate Change to Baroness Parminter, Chair of the Environment and Climate Change Committee (20 June 2022): <https://committees.parliament.uk/publications/22836/documents/167724/default/>

619 Written evidence from BEIS (CCE0077)

620 Written evidence from the CAST Consortium (CCE0040)

621 Q 8 (Ewa Kmietowicz)

622 Written evidence from Sustrans (CCE0070)

623 Written evidence from the British Retail Consortium (CCE0042)

new housing developments which are built far from existing settlements and which have few amenities on site”, embedding dependency on car-use in new developments “from the outset”.<sup>624</sup> Similarly, Cycling UK described another example of an apparent lack of cross-departmental coordination, labelling DHSC’s failure to mention the role of active travel in the Obesity Strategy and Physical Activity Guidelines “a huge missed opportunity”.<sup>625</sup>

*Individual departments’ work on behaviour change*

374. Departments have varying levels of engagement with behaviour change for climate and environmental goals, with DHSC, DLUHC and DCMS stating in their submissions that they do not have an overarching strategy, plan or framework in place for behaviour change for climate change and the environment.<sup>626</sup> By contrast, as described in paragraph 356, in their submissions DfT, BEIS and Defra each referred to the six principles underpinning green choices set out in the Net Zero Strategy.<sup>627</sup>
375. Some departments appear to incorporate some consideration of behaviour change for climate and environmental goals into policy design. For example, DHSC described a programme of research co-led by the UK Health Security Agency (UKHSA) through the NIHR Health Protection Research Units (HPRUs) which involves two HPRUs that cover behavioural change in the context of climate change—the Environmental Change and Health HPRU and the Behavioural Sciences and Evaluation HPRU.<sup>628</sup> The extent to which the behaviour change for climate and environment work by the HPRUs feeds into the Department’s policy design process was not described in detail in the submission. DfE described the use of a theory of change to identify behaviours required to meet ambitions in their sustainability and climate strategy, published on 21 April.<sup>629</sup>
376. There is a desire in some departments for more leadership and coordination from central government. DHSC emphasised the important role that cross-government coordination could play in realising the health-related co-benefits associated with behaviour change for climate and environmental goals—such as the effect that more active lifestyles could have on both public health and air quality.<sup>630</sup> DHSC argued that because the levers to enable such co-benefits are “not always led by health and public health, further work is needed to ensure that policies and approaches can provide mutual benefits across government”.<sup>631</sup> In describing their work on behaviour change, DCMS said:

“The department’s work on behaviour change is not mature enough to have developed frameworks and methods on this specific area however,

---

624 Written evidence from Sustrans (CCE0070)

625 Written evidence from Cycling UK (CCE0040)

626 Written evidence from the Department for Health and Social Care (CCE0061), the DLUHC (CCE0063) and the Department for Digital, Culture, Media & Sport (CCE0065)

627 Written evidence from BEIS (CCE0059), the DfT (CCE0062) and Defra (CCE0068)

628 Written evidence from the Department for Health and Social Care (CCE0061)

629 Written evidence from the DfT (CCE0062). DfE, ‘Sustainability and climate change: a strategy for the education and children’s services systems’ (21 April 2022): <https://www.gov.uk/government/publications/sustainability-and-climate-change-strategy/sustainability-and-climate-change-a-strategy-for-the-education-and-childrens-services-systems> [accessed 7 September 2022]

630 Written evidence from the Department for Health and Social Care (CCE0061)

631 *Ibid.*

we are keen to learn from other departments with larger resourcing and greater experience in this area.”<sup>632</sup>

377. Witnesses provided various options for adapting the machinery of government to strengthen cross-government coordination of behaviour change policy for climate and environmental goals. Prof Dame Marteau suggested that the Government develop “a science strategy and delivery body for changing behaviour for net zero”, which she said should be led by the CCC.<sup>633</sup> Ms McQuaid made a plea for the Cabinet Office to play a role in co-ordinating activity, while n0co2.org suggested it would be logical to “have a Department that focuses on delivering results for cutting CO<sub>2</sub> ... and with a focal point individual in charge”.<sup>634</sup>
378. **Inconsistency in policies owned by different parts of government inhibits the ability and likelihood of behaviour change to meet climate and environmental goals. The use of upstream measures including regulation, taxation and development of infrastructure, appropriately sequenced, are key and require the input of, and coordination across, various departments. Moreover, policies in different departments are maintaining high carbon lifestyles and undermining the public’s willingness to change behaviours. The evidence we gathered from departments revealed poor coordination of policies across departments and poor implementation of sequenced policies within departments.**
379. *We welcome the introduction of a Minister of State for Climate. The Government should ensure that the Minister has sufficient resources, and their role should include coordinating, sequencing and monitoring behaviour change policy across departments.*
380. *The Government should increase transparency in the proceedings of the two climate-focused Cabinet Committees—the Climate Action Strategy Committee and the Climate Action Implementation Committee—to enable greater scrutiny of cross-government coordination of behaviour change for climate and environmental goals.*

### *Resources*

381. We heard there is a good level of expertise in behaviour change in pockets of the Government, but the resources for developing behavioural interventions are not consistent across departments. For example, DLUHC told us they do not have any dedicated function for considering behaviour change for climate change and the environment, instead this is “a component of policy development on multiple areas”.<sup>635</sup> DCMS said that they have no budget allocated for behaviour change and that they have a “small team of 2 FTE [full-time equivalent] working on sustainability as a cross-cutting policy areas for the department”.<sup>636</sup> By contrast, DfE told us they have 29 FTE in the Sustainability and Climate Change Unit—with 19 FTE in post and

632 Written evidence from the Department for Digital, Culture, Media & Sport ([CCE0065](#))

633 [Q 41](#) (Prof Dame Theresa Marteau)

634 [Q 41](#) (Carmel McQuaid) and written evidence from n0c20.org ([CCE0020](#))

635 Written evidence from the DLUHC ([CCE0063](#))

636 Written evidence from the Department for Digital, Culture, Media & Sport ([CCE0065](#))

10 vacancies—which is supported by 2.5 FTE in their Behavioural Insights Unit.<sup>637</sup> In summarising their resourcing in this area, Defra said:

“Defra resources a central strategy team to coordinate behaviour change for the 25 YEP [25 Year Environment Plan], as well as social researchers, a behavioural insights team, evidence teams and the work of individual policy teams whose work involves behaviour change. In addition, we are bringing in two behaviours-focused academic research fellows in 2022.”<sup>638</sup>

382. The BIT was set up in 2010 to operate within the Cabinet Office providing behavioural insights and research to inform policy across government. In 2014 the BIT was split from government and, as of December 2021, is now fully owned by the charity Nesta.<sup>639</sup> Mr Park told us that BIT remains the largest team working on behavioural research to inform public policy with “a couple of hundred staff working globally” and emphasised that there is now “nothing within government at that scale”.<sup>640</sup> He reiterated that although there are “a lot of smart and capable people” working on behaviour change in government, this is “still a relatively niche area of expertise” and the level of resourcing does not meet the “scale of the challenge”.<sup>641</sup> Furthermore, the UCL Centre for Behaviour Change suggested that sharing knowledge about behaviour change across departments is characterised by “informal networking, exchange and ad-hoc collaboration between behavioural science teams” rather than a formal, centralised system of resources.<sup>642</sup>
383. With regard to the wider resourcing context, after we had finishing gathering evidence as part of this inquiry the Government announced an intention to reduce the size of the civil service to 2016 levels.<sup>643</sup>
384. **The evidence gathered for this inquiry suggests there is no central resource from which departments can seek expertise on behaviour change for climate and the environment. Similarly, there are differing levels of expertise across relevant departments, there is no mechanism for coordinating and retaining expertise across departments, and no clear mechanisms exist for evaluation and learning lessons. The evidence gathered suggests this is partly because there is not enough behavioural science expertise both centrally and across departments.**
385. *The Government should strengthen an existing team or create a new unit to provide advice and coordination on behaviour change for climate and environmental goals across departments and take steps to increase and standardise the expertise held across all relevant departments. The Government should seek to equip staff working centrally and across departments with behaviour change expertise.*
386. *A package of guidance—which we have referred to in Chapters 4, 5 and 8—would strengthen the Government’s leadership on behaviour*

---

637 Written evidence from the DfE (CCE0066)

638 Written evidence from Defra (CCE0068)

639 Behavioural Insights Team, ‘Documents’: <https://www.gov.uk/government/organisations/behavioural-insights-team> [accessed 7 September 2022]

640 Q 2 (Toby Park)

641 *Ibid.*

642 Written evidence from the UCL Centre for Behaviour Change (CCE0033)

643 BBC, ‘Boris Johnson wants to cut up to 91,000 civil service jobs’, (13 May 2022): <https://www.bbc.co.uk/news/uk-politics-61432498> [accessed 7 September 2022]

*change for climate and environmental goals, improve coordination between and consistency across departments and provide a central resource for actors on different levels, such as local authorities, civil society and businesses. The guidance should be owned by the Cabinet Office, developed closely with BEIS and Defra, and should have similar status to other manuals for policymakers, such as the Open Policy Making toolkit. The guidance should include:*

- (a) *A toolkit for designing, delivering and evaluating policy to enable behaviour change for climate and environmental goals;*
- (b) *A consistent framework for working with other actors—such as civil society, local authorities and businesses—in the development and delivery of policies for behaviour change to meet climate and environmental goals;*
- (c) *Information on the machinery of Government related to behaviour change for climate and environment, including all groups and committees working in the policy area and their remits;*
- (d) *An evaluation process for appraising the effectiveness of behaviour change interventions for climate and environmental goals; and*
- (e) *Lessons learned from behaviour change interventions for climate and environmental goals across government.*

### **Coordination of other actors**

387. A theme across much of the evidence we received was that the Government needs to “join up the dots” between national, regional and local actors working to change behaviour for climate and environmental goals.<sup>644</sup> As we touched on in Chapter 6, the Government could engage with actors such as civil society organisations, local authorities and businesses more effectively, and could make more effort to coordinate the relationships between these actors.
388. Prof Dame Marteau suggested the Government “needs to engage the whole of civil society, as well as business, and policymakers at local, national and international levels” in an enabling role through providing resources and regulation.<sup>645</sup> South Cambridgeshire County Council agreed that the Government needs to ensure “the enabling conditions for change to sustainable behaviours are in place” across all levels of actors in society.<sup>646</sup>
389. Carbon Copy set out a vision for reimagining the roles of and relationships between actors working on behaviour change for climate and environmental goals, with an emphasis placed on developing a network approach and reenvisioning the role of local authorities. They suggested:

“We should look at local government as a platform rather than a bottleneck. This would require a rejection of centralised bureaucracy: citizens and businesses would build on top of their local government,

644 [Q 15](#) (Pam Warhurst)

645 [Q 41](#) (Prof Dame Marteau)

646 Written evidence from the South Cambridgeshire District Council ([CCE0105](#))

which would become a vehicle for co-ordinating the collective action of citizens. Many local authorities have played this role in the stewardship of area-wide local Climate Action Plans. Going forward, they should operate as one node in a networked system of stakeholders—co-ordinating rather than controlling initiatives.”<sup>647</sup>

390. We heard international examples of coordination by central governments of the various actors working on behaviour change for climate and environmental goals. Secretary-General Lehtomäki echoed this point, suggesting: “The role of Governments is essential ... the Governments are the only bodies capable of seeking systemic change.”<sup>648</sup> Similarly, Ms Pompili told us the implementation of statutory targets relies on “working closely with all partners” and explained that these partners included “local policymakers and companies, big and small”.<sup>649</sup>
391. **There is limited upstream coordination of, and information provision to, other actors working on behaviour change for climate and environmental goals across different levels—including civil society, businesses and local authorities. This is further hampered by a failure of the Government to publish a public engagement strategy identifying how and who can enable behaviour change for climate and environmental goals.**
392. *The public engagement strategy which we are calling for should make clear that delivery of net zero is a shared task between government, businesses, local authorities, civil society and individuals and establish what role each actor has to play in delivering net zero.*

---

647 Written evidence from Carbon Copy ([CCE0008](#))

648 [Q 49](#) (Paula Lehtomäki)

649 [Q 23](#) (Barbara Pompili)

## SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

---

### Chapter 2: Behaviour change: why, what and who

1. There is a widespread consensus that—if the UK is to meet its climate and environmental goals—we will need to change how we travel, what we eat and buy, and how we use energy at home, including through adopting new technologies and reducing carbon-intensive consumption. Making these changes will bring multiple health, social and economic benefits. (Paragraph 27)
2. The UK has made welcome progress in reducing emissions through technological innovations and their uptake by industry with little visible impact on the public. This must continue but the Government must also devote much more attention to making it easier for individuals, households and communities to adopt new technologies, change consumption patterns—including by reducing demand—and shift travel modes, if we are to achieve net zero and the UK's long-term environmental goals. (Paragraph 28)
3. The Government should focus as a priority on enabling the most impactful behaviour changes that will be needed to meet climate and environmental goals including: adopting ultra-low emission vehicles; installing home insulation and low-carbon heating technologies; taking fewer long-haul flights; changing of diets; and generally reducing carbon and resource-intensive consumption and waste. (Paragraph 29)
4. Witnesses were clear that the UK's path to net zero should be a fair one. Everyone will need to make some changes, but higher income households which typically have a larger carbon footprint must take correspondingly larger steps to reduce their emissions. (Paragraph 39)
5. The barriers to changing behaviour to reduce emissions and environmental impacts and to adapt to climate change vary across the population. Policies will have to address the needs of different households including people on low incomes, people living in rural areas and people with disabilities. We welcome the Minister's recognition of the importance of affordability in the transition to net zero. The growing cost-of-living crisis strengthens the need for behaviour change policies that support lower-income households. (Paragraph 40)
6. Fairness should be a central aspect of government policies on behaviour change to meet net zero and long-term environmental goals, including by helping low-income households with costs where appropriate. (Paragraph 41)

### Chapter 3: Current position of the public

7. The UK public are concerned about climate change and the environment and there is a widespread desire for action to be taken. There are several positive trends such as shifts in diets, purchasing behaviours and the growing uptake of electric vehicles. However, most of us do not know what the most effective actions are that we can take to reduce our emissions and environmental impacts, nor do we appreciate the scale of change that will be needed to reach net zero or adapt to climate change. The appetite of people across the UK for these actions and for the policies needed to enable them is mixed. The public want clear leadership from government and a coordinated approach from government to help them adapt. (Paragraph 57)

8. The Government must be more open about the changes to behaviour that will be needed to meet the UK's climate and environmental goals. We call on the Government to develop a public engagement strategy by April 2023 to: (1) communicate and fill the gaps in understanding about the types of changes needed to reach net zero, reduce our environmental footprint and adapt to climate change, and (2) initiate a dialogue with the public about which policies can best enable change and how. Tapping the potential in public concern about climate change and the environment could help accelerate the transition to a greener UK. Conversely a lack of communication and engagement from government risks a delayed and disorderly transition. We offer further recommendations on public engagement in Chapter 8. (Paragraph 58)
9. Public attitudes towards climate change and the environment have evolved significantly in recent years. There is a rich body of evidence on some aspects of public attitudes and willingness to adopt behaviour change to meet climate and environmental goals, but gaps in the data exist. We welcome the Office for National Statistics' prototype *UK Climate Change Statistics Portal*, however neither this portal nor the BEIS Public Attitudes Tracker consistently include statistics relating to the key behaviour changes needed to achieve the UK's climate and environment goals. (Paragraph 62)
10. The BEIS Public Attitudes Tracker or the Office for National Statistics UK Climate Change Statistics Portal should regularly monitor whether people would like to or are making changes in how they travel, use energy at home and what they eat and buy, and the reasons behind people's willingness to change. (Paragraph 63)

#### Chapter 4: Theories, drivers and levers of change

11. Our understanding of behaviour change continues to evolve. Across the range of behaviour change theories there are some consistent findings including that human behaviour is motivated by multiple factors, such as knowledge, values, social norms, price, ease and functionality. Several of these factors are structural and contribute to the wider environment within which behaviour takes place. (Paragraph 78)
12. While some departments refer to behaviour change theories and models, we are not convinced that these are being used routinely and consistently by policymakers when approaching the societal aspects of achieving climate and environmental goals. (Paragraph 79)
13. Awareness-raising measures, while important, are insufficient to enable behaviour change. Policies and initiatives will need to use multiple levers that focus on the environment within which behaviour takes place and the affordability and availability of products, services and infrastructure. (Paragraph 89)
14. We call on the Government to develop and publish guidance to inform policy-making on behaviour change to meet climate and environmental goals. The guidance should cover the theories, drivers and levers of behaviour change and methods for using behaviour change frameworks in policy design and evaluation. We talk about this and a wider package of proposed guidance in Chapter 9. (Paragraph 90)

15. Departments from across government should use the full range of policy levers—including regulatory and financial (dis)incentives, the development and adaptation of physical and choice environments, and communication and engagement—to enable changes to the most impactful climate and environmental behaviours. (Paragraph 91)

### Chapter 5: Learning from other policy areas

16. Successful examples of enabling behaviour change in public health have relied on a package of policy measures. Interventions using solely awareness-raising measures—such as the ‘five-a-day’ fruit and vegetable campaign—have largely failed to deliver sustained behaviour change. The pensions auto-enrolment intervention has been successful because Government shaped the choice environment, rather than relying on individual action or information provision. (Paragraph 98)
17. The effectiveness of policies aimed at improving public health has historically been undermined by lobbying by parts of the tobacco and food industries. There is a risk that parts of the food and fossil fuel industries, as well as heavy users of fossil fuels, similarly seek to undermine the policies needed to enable behaviour change to meet net zero. (Paragraph 100)
18. The Government should apply the lessons from successful and unsuccessful attempts to drive behaviour change in other policy fields to its efforts to enable behaviour change to meet the UK’s climate and environmental goals. Key among these lessons is that coherent packages of policy measures must be deployed to enable the most impactful behaviour changes that will be needed. Measures should also be put in place to ensure the effectiveness of policies is not undermined by corporate lobbying. (Paragraph 101)
19. The COVID-19 pandemic and restrictions put in place to curb the spread of the virus brought about huge changes to everyday life across the population. The individual’s choice environment was changed, and people had to form new habits and routines to adapt to the changing circumstances. We recognise that the changes demanded by the pandemic were seen as a short-term response to a short-term emergency, nevertheless, as we emerge from the pandemic, the Government has an opportunity to reflect on lessons learned about behaviour change from COVID-19 and consider applying such lessons to wider policy contexts. (Paragraph 106)
20. The Government should seize the opportunity to evaluate behaviour change which took place during the COVID-19 pandemic to understand the theory, drivers, and levers behind the changes, with a view to applying lessons learned to other critical policy areas, including climate change and the environment. The evaluation should include an assessment of the effectiveness of principles behind COVID-19 behaviour change interventions, such as open information, clear messaging about personal action, delivery of messages by both politicians and scientists, clarity about the role of government in relation to the role of individual action, and the use of an independent advisory structure through SAGE and SPI-B. The evaluation of lessons learned from behaviour change during the pandemic should be included in the package of guidance for departments working on policy development and implementation, which we discuss further in Chapters 8 and 9. (Paragraph 107)

## Chapter 6: Delivering behaviour change in partnership

21. Community groups, charities and faith groups are delivering reductions in emissions and environmental impacts and adaptation in communities across the UK, often while responding to other local needs. While behaviour change on the scale needed to meet the UK's climate and environmental goals requires action from the Government and other organisations, community-level behaviour change can make an important contribution (Paragraph 115)
22. The Government should take a holistic view of the benefits of climate and environmental activities delivered by community groups, charities and faith groups and recognise and celebrate the life-enhancing change they achieve. Government policies should harness the many contributions of civil society and seek to unblock the challenges they face. (Paragraph 116)
23. Local government bodies are in a central position to deliver change through place-based solutions due to their proximity to individuals, households and communities and their ability to work with civil society and to tailor interventions to specific groups. However, despite many brilliant examples of local government bodies supporting residents and communities to reduce emissions and environmental impacts, and a desire from many to do more, they often lack the necessary funding and staffing and face many other pressures. The absence of consistent policies and communications from central government also hinders their ability to deliver change. (Paragraph 124)
24. The Government should use the Net Zero Forum announced in the Net Zero Strategy to work through the challenges faced by local government in delivering behaviour change interventions—including insufficient funding and resources—and ensure the forum meets local government's expectations for a more collaborative and joined-up relationship with central government. (Paragraph 125)
25. Businesses have a key role to play in enabling behaviour change to meet climate and environmental goals, including through increasing the affordability and availability of products and services with lower climate and environmental impacts and by engaging their customers and employees. Many businesses are keen to take on this role and there are some excellent ongoing initiatives led by businesses, but challenges arising from the policy and regulatory environment are constraining efforts. (Paragraph 135)
26. The Government must provide clear, consistent and sustained policy signals to stimulate investment and innovation. To this end the Government should set dates for banning the use of technologies with the highest emissions and environmental impacts where suitable alternatives exist or are foreseeable, where appropriate with a phased programme. For technologies where there is clear evidence on feasible alternatives, dates for final bans and milestones should be set within the next 12 months. The Government should gather and review evidence regarding the other most carbon and resource intensive technologies on a continuous basis going forward. The Government should also strengthen product standards, as we go on to discuss in Chapter 7. (Paragraph 136)
27. The Government should step up its strategic engagement at a senior level with businesses operating in the key behaviour change areas—personal travel, food, energy use at home and consumer goods retail—with a focus on

developing sectoral action plans to increase the availability and affordability of green products and services in line with climate and environmental goals. (Paragraph 137)

28. Greater action should be taken to ensure that businesses who offer products and services with lower climate and environmental impacts can compete on a level playing field. Over the next 12 months, the Government should conduct a review of regulatory barriers faced by businesses seeking to offer products and services with these characteristics in the key behaviour change areas and set out an action plan for addressing those barriers. (Paragraph 138)
29. We welcome the Scottish and Welsh governments' acknowledgements that reaching net zero will require significant changes to behaviour and the efforts of Northern Ireland's Department for Agriculture, Environment & Rural Affairs to pursue climate and environment behaviour change initiatives. The Scottish Government's embedding of the Individual, Social and Material Tool in policy-making and Public Engagement Strategy for Climate Change, and the Welsh Government's commitment to produce a Public Behavioural Change Engagement Strategy, are very positive steps. (Paragraph 151)
30. The Government should make an assessment of the devolved governments' strategies and initiatives with a view to replicating the most effective elements in the public engagement strategy which we recommended in Chapter 3 and discuss further in Chapter 8. (Paragraph 152)

### **Chapter 7: Challenges and opportunities in key behaviour change areas**

31. Transport, including personal travel, makes the largest contribution to emissions. We welcome the Government's focus on the rollout of low-emissions vehicles—including through phasing out the sale of new petrol and diesel cars—and its efforts to improve active travel infrastructure and local public transport systems. It is critical that these efforts deliver easier, safer and more accessible walking and cycling routes and remove barriers to public transport use if we are to achieve the behaviour change in travel needed to meet the UK's climate and environmental goals. (Paragraph 178)
32. The Government must deliver on its ambition to improve active travel infrastructure and local public transport systems by providing the necessary resources and supporting local government bodies to implement projects on the ground. The upcoming Transport and Levelling-Up and Regeneration Bills should be used to ensure local government bodies have the necessary powers to prioritise active travel and local public transport—including in new developments. The cost-benefit assessment process for transport projects should be revised to give greater weight to reducing emissions. (Paragraph 179)
33. The Government's failure to acknowledge the need for a reduction in long-haul flights is misplaced given the meaningful contribution this could make to emissions reductions as well as the public's support for a fair measure that would help to secure this. (Paragraph 180)
34. The Government should launch a call for evidence on introducing a frequent flyer levy applied to long-haul flights. We note that, by design, proposed frequent flyer levies only affect the minority of the population who take flights much more often than the average individual or family. (Paragraph 181)

35. Given the emissions reductions and environmental improvements that could be achieved through partially reducing meat and dairy consumption, we are disappointed that the Net Zero Strategy neglected to mention the climate and environmental benefits of dietary change and the Government food strategy failed to put forward a related target. (Paragraph 207)
36. Alongside a partial reduction in meat and dairy consumption, a shift towards certain types of meat, including pasture fed meat, dairy and other foods produced by sustainable production methods would contribute to achieving climate and environmental goals. Systematic interventions are needed to increase the availability and uptake of food with lower climate and environmental impacts. (Paragraph 208)
37. We welcome the Government's commitments in the Government food strategy to consult on making Government Buying Standards for Food and Catering Services (GBSF) mandatory across the public sector and on introducing a target for at least 50 per cent of food spend to be on food produced locally or certified to higher environmental standards. (Paragraph 209)
38. The Government should seek to increase the availability of food with lower climate and environmental impacts by:
  - Delivering on its commitment to develop a system of agricultural support—via an effective and expedited rollout of ELMS and other environmental schemes—which supports farmers and land managers to reduce emissions and enhance the natural environment.
  - Negotiating trade deals which ensure imported food products placed on the Great Britain market meet the same climate and environmental standards required of domestic producers.
  - Utilising public health policy tools, including updating the Eatwell Guide to reflect a diet that is compatible with the UK's long-term climate and environmental goals and aligning with this the GBSF, which we support making mandatory across the public sector. (Paragraph 210)
39. There is limited public awareness of the emissions and environmental impacts of different types of food—including more and less sustainable meat and dairy production methods—not least because information is largely unavailable or inaccessible to consumers. In light of this, we welcome the Government's commitments in the Government food strategy to launch a Food Data Transparency Programme, including a proposed mandatory methodology for eco labels and sustainability claims. (Paragraph 211)
40. The Government should seek to make information regarding the environmental impacts of different food products more accessible by:
  - Taking steps to ensure that public communications and information on diets convey the range of health, climate and environment benefits that dietary change—including meat and dairy consumption in line with an updated Eatwell Guide—can achieve.
  - Implementing the Food Data Transparency Programme and public sustainability reporting by companies in the food sector in a timely manner.

- Urgently consulting on the mandatory methodology for eco labels and sustainability claims, which we go on to discuss further later in this chapter. (Paragraph 212)
41. While taxes are often effective at changing behaviour and it may ultimately be necessary to use taxes in this area, it is not the right moment to introduce a tax on emissions associated with household products like food. Such a tax could be regressive—impacting on lower income households more severely during a cost-of-living crisis—and could undermine public support for the UK’s climate and environmental goals. When future governments consider such a measure, eliminating regressive impacts through policy design should be a priority. (Paragraph 213)
  42. Insulating homes could deliver emissions reductions, help reduce household energy bills and improve energy security, but without greater government support comprehensive home insulation remains out of reach for many households who are being affected acutely by the cost-of-living crisis. Without improved insulation, the Government’s heat pump installation targets are also at risk as homes must be well-insulated for heat pumps to work effectively. (Paragraph 235)
  43. The uptake of energy efficiency improvements and low-carbon heating is being constrained by their upfront costs and the insufficiency of government support. While we welcome the Government’s efforts to support heat pump installations and unit cost reductions, heat pumps are not appropriate for all homes and their cost remains a barrier. Households must be supported financially, through better information and through straight-forward installation processes. While we welcome the Government’s new energy advice service, it is unclear that it will provide the level of support needed. (Paragraph 236)
  44. The Government should coordinate a national drive to improve the energy efficiency of our homes, including by amending the Energy Security Bill to introduce a support package to help households with installation costs. The Government should expand its energy advice service to include a facility whereby a dedicated contact person supports households throughout the process of installing energy efficiency measures and low carbon heating technologies. We comment further on the communications aspect of the advice service in Chapter 8. (Paragraph 237)
  45. The Future Homes Standard will strengthen building standards for energy efficiency and emissions performance from 2025 but homes are currently being built to existing standards, which have weaknesses and are not well-enforced. This is resulting in missed energy savings and emissions reductions and costly processes of retrofitting for home-buyers. It is also a missed opportunity to create a social norm of environments that support low-carbon behaviours. (Paragraph 238)
  46. The Government should review the Future Homes Standard timetable and bring forward further interim measures to strengthen energy efficiency standards for new homes as a matter of urgency, as well as taking steps to improve the enforcement of current standards. (Paragraph 239)
  47. As noted above, we welcome the Government’s commitment in the Government food strategy to develop a mandatory methodology for food and drink eco labels and sustainability claims. This has the potential to drive

producers and retailers to improve the sustainability of products on offer to consumers. (Paragraph 259)

48. The Government should urgently consult on and then launch the mandatory methodology for food eco labels and sustainability claims. (Paragraph 260)
49. Product standards could be used to a greater extent to drive up the sustainability of products and services available in a manner consistent with the Government's goal of making it easier, clearer and cheaper for consumers to make green choices. (Paragraph 261)
50. The Government should accelerate the development of low carbon product standards referred to in the Industrial Decarbonisation Strategy and review the role enhanced product standards for other sustainability characteristics could play in the most resource-intensive consumer goods sectors. It should also accelerate labelling proposals put forward in the same strategy and review the role enhanced eco-labelling could play in consumer goods sectors where current frameworks do not cover the key climate and environmental impacts. (Paragraph 262)
51. The Government's work on Extended Producer Responsibility is welcome and could support less resource-intensive consumption. However, progress has been disappointingly slow in developing proposals originally announced in 2018. (Paragraph 263)
52. The Government should develop Extended Producer Responsibility schemes, including for textiles and electronics, with much greater urgency. (Paragraph 264)

## **Chapter 8: Communications, public engagement and education**

53. While communications on their own are insufficient to facilitate the behaviour change needed to meet the UK's climate and environmental goals, the COVID-19 pandemic demonstrated that clear, well-resourced public communications play an important role in increasing public understanding of the challenges we face collectively and the actions we can all take to address these. (Paragraph 272)
54. Guidance published by the Government Communication Service titled *The Principles of Behaviour Change Communications* provides a basis for communicators across government to consider behavioural science in designing communications campaigns, but there is no similar guidance specifically designed for behaviour change to meet climate and environmental goals. (Paragraph 275)
55. As part of the proposed package of guidance we referred to in Chapters 4 and 5, we call on the Government to develop and publish guidance for departments to inform their communications strategies on behaviour change to meet climate and environmental goals. The guidance document could draw on the Government Communication Service's guidance, the Principles of Behaviour Change Communications, and apply the principles in the context of meeting climate and environmental goals. (Paragraph 276)
56. The Government's new energy advice service signifies a positive step; we hope that it will provide clear signposting and actionable advice to consumers and, as set out in Chapter 7, we hope it will be expanded. However, the service addresses only one issue: energy efficiency. A broader communications

campaign to address other issues in this space—such as how we travel and what we eat—is urgently required. This campaign, as part of the public engagement strategy we recommend in Chapter 3, should communicate the need for change and help to develop a shared positive vision; provide the public with the information needed to make green choices; shift social norms; develop policies collaboratively and engender support for the changes that will be needed to reach net zero and achieve the UK’s environmental goals. (Paragraph 295)

57. As part of the public engagement strategy that we call for in Chapter 3 by April 2023, the Government should:
  - Provide clear, consistent and actionable information that enables the public to make informed choices about how we travel, what we eat and buy, and how we heat our homes;
  - Develop positive messaging which emphasises the co-benefits of changes and uses stories about individuals already making changes;
  - Work through trusted sources such as scientists and community leaders; and
  - Tailor messaging to specific audiences to ensure it is effective and inclusive. (Paragraph 296))
58. We recommend the Government significantly scale up its spending on public communications campaigns to reflect the scale of the challenges we face arising from climate change and environmental damage. Communications on behaviour change for climate and environmental goals should be prioritised in the Government Communications Plan for 2022—2023. (Paragraph 297)
59. The Government should develop a monitoring process to evaluate the effectiveness of the new energy advice service to ensure that lessons can be learnt from the initiative for future behaviour change interventions. (Paragraph 298)
60. There is great potential to normalise behaviours associated with reduced greenhouse gas emissions and environmental impacts—including public transport use and active travel—through positive representations in broadcast television, advertising and on social media. However, at present aspects of the media environment run in a contrary direction, for example the proportion of advertising devoted to SUVs (Sports Utility Vehicles) and disinformation and misinformation on climate change available on social media. (Paragraph 311)
61. Despite welcome improvements in guidance for businesses around misleading environmental claims, more could be done to counter greenwashing, build consumer trust and ensure companies who market products and services associated with lower greenhouse gas emissions and environmental impacts can compete fairly. (Paragraph 312)
62. The Government should introduce measures to regulate advertising of high-carbon and environmentally damaging products. We were persuaded by arguments made by the Competition and Markets Authority (CMA). As a priority, the Government should create standardised definitions of commonly used environmental terms to which businesses must adhere in marketing and labelling their products, and add misleading and/or unsubstantiated

environmental claims to the list of banned practices under consumer law. (Paragraph 313)

63. The Government should assess the ways that misinformation and disinformation about climate change and the environment online can be challenged. (Paragraph 314)
64. We were heartened to hear the positive experiences of participants in the UK Climate Assembly and commend this use of deliberative engagement, though we are concerned that the Government may not have taken the Climate Assembly's report findings seriously. Citizens' assemblies and other forms of public engagement, such as those tailored to young people, will play a significant role in supporting behaviour change for climate and environmental goals. Engaging the public and strengthening understanding in this space will improve the legitimacy and effectiveness of behaviour change interventions. (Paragraph 327)
65. As part of the public engagement strategy that we have called for, the Government should embed deliberative methods, such as citizens assemblies, in climate change and environment policy design from local to national levels to shape a shared vision of net zero and environmental sustainability. In the public engagement strategy, the Government should include specific methods to engage young people, through mechanisms such as social media campaigns, young citizens' assemblies and youth advisory panels. (Paragraph 328)
66. We strongly welcome the inclusion of environmental and sustainability issues in the syllabus of the forthcoming Natural History GCSE. However, there is also a need for young people to be educated about the science of climate change and actions they can take to support meeting climate and environmental goals, which must be embedded across the curriculum. (Paragraph 332)
67. The Department for Education's Sustainability and Climate Change Strategy should be reviewed to ensure every opportunity has been taken through both formal and informal education and communications and the school environment to provide young people with the knowledge and skills to make life and career choices to support environmental and climate goals. (Paragraph 333)

## **Chapter 9: The Government's approach and role**

68. We have not found the Government's current approach to enabling behaviour change to meet climate and environmental goals to be adequate to meet the scale of the challenge. (Paragraph 358)
69. Of the six principles underpinning green choices outlined in its own Net Zero Strategy, the Government has failed to implement 5 and 6: to motivate and build public acceptability for major changes and to present a clear vision of how we will get to net zero and what the role of people and business will be. Nor has the Government consistently applied across the key areas where people and businesses will need to change behaviours to meet net zero and environmental goals the remaining four principles—of sending clear regulatory signals, making the green choice the easiest, making the green choice affordable and empowering people and businesses to make their own choice. (Paragraph 359)

70. The one element of consistency in departments' approaches to delivering the Net Zero Strategy—the principle of going with the grain of consumer choice—ignores the role that many government levers like regulation and taxation play in shaping markets and influencing social norms. (Paragraph 360)
71. The Government's failure to date to put in place sufficient policies, resources and communications to enable change risks missing statutory climate targets and opportunities to improve health and wellbeing. (Paragraph 361)
72. The public expect the Government to take a leadership role to enable behaviour change, but the Government's reticence to address key areas—such as what people eat, how we heat our homes, what we buy and how we travel—which is largely a result of a reluctance to be perceived as reducing freedom of choice, undermines individuals' willingness and ability to take action. (Paragraph 362)
73. The Government is excessively reliant on large-scale and as yet undeveloped technologies to meet net zero targets. The evidence shows that the public expect leadership from the Government and can accept measures to adapt their behaviour to more sustainable patterns and reduced carbon-intensive consumption, as well as to adopt existing green technologies, if communicated clearly and properly supported. (Paragraph 363)
74. The Government should apply behavioural science to all its policies and initiatives. It should urgently review the Net Zero Strategy and policies and initiatives in place to deliver it and rectify where its six principles underpinning green choices are not being delivered. (Paragraph 364)
75. As we note in Chapters 3 and 8, the Government should introduce a public engagement strategy to build support for helping people adopt new technologies and reduce carbon-intensive consumption in key areas where behaviour change is required. Net zero cannot be achieved without addressing both. (Paragraph 365)
76. Inconsistency in policies owned by different parts of government inhibits the ability and likelihood of behaviour change to meet climate and environmental goals. The use of upstream measures including regulation, taxation and development of infrastructure, appropriately sequenced, are key and require the input of, and coordination across, various departments. Moreover, policies in different departments are maintaining high carbon lifestyles and undermining the public's willingness to change behaviours. The evidence we gathered from departments revealed poor coordination of policies across departments and poor implementation of sequenced policies within departments. (Paragraph 378)
77. We welcome the introduction of a Minister of State for Climate. The Government should ensure that the Minister has sufficient resources, and their role should include coordinating, sequencing and monitoring behaviour change policy across departments. (Paragraph 379)
78. The Government should increase transparency in the proceedings of the two climate-focused Cabinet Committees—the Climate Action Strategy Committee and the Climate Action Implementation Committee—to enable greater scrutiny of cross-government coordination of behaviour change for climate and environmental goals. (Paragraph 380)

79. The evidence gathered for this inquiry suggests there is no central resource from which departments can seek expertise on behaviour change for climate and the environment. Similarly, there are differing levels of expertise across relevant departments, there is no mechanism for coordinating and retaining expertise across departments, and no clear mechanisms exist for evaluation and learning lessons. The evidence gathered suggests this is partly because there is not enough behavioural science expertise both centrally and across departments. (Paragraph 384)
80. The Government should strengthen an existing team or create a new unit to provide advice and coordination on behaviour change for climate and environmental goals across departments and take steps to increase and standardise the expertise held across all relevant departments. The Government should seek to equip staff working centrally and across departments with behaviour change expertise. (Paragraph 385)
81. A package of guidance—which we have referred to in Chapters 4, 5 and 8—would strengthen the Government’s leadership on behaviour change for climate and environmental goals, improve coordination between and consistency across departments and provide a central resource for actors on different levels, such as local authorities, civil society and businesses. The guidance should be owned by the Cabinet Office, developed closely with BEIS and Defra, and should have similar status to other manuals for policymakers, such as the Open Policy Making toolkit. The guidance should include:
  - A toolkit for designing, delivering and evaluating policy to enable behaviour change for climate and environmental goals;
  - A consistent framework for working with other actors—such as civil society, local authorities and businesses—in the development and delivery of policies for behaviour change to meet climate and environmental goals;
  - Information on the machinery of Government related to behaviour change for climate and environment, including all groups and committees working in the policy area and their remits;
  - An evaluation process for appraising the effectiveness of behaviour change interventions for climate and environmental goals; and
  - Lessons learned from behaviour change interventions for climate and environmental goals across government. (Paragraph 386)
82. There is limited upstream coordination of, and information provision to, other actors working on behaviour change for climate and environmental goals across different levels—including civil society, businesses and local authorities. This is further hampered by a failure of the Government to publish a public engagement strategy identifying how and who can enable behaviour change for climate and environmental goals. (Paragraph 391)
83. The public engagement strategy which we are calling for should make clear that delivery of net zero is a shared task between government, businesses, local authorities, civil society and individuals and establish what role each actor has to play in delivering net zero. (Paragraph 392)

## APPENDIX 1: LIST OF MEMBERS AND DECLARATIONS OF INTEREST

---

### Members

Baroness Boycott  
 Lord Browne of Ladyton  
 Lord Cameron of Dillington (until 19 January 2022)  
 Baroness Chalker  
 Lord Colgrain  
 Lord Grantchester (from 19 January 2022)  
 Lord Lilley  
 Lord Lucas  
 Baroness Northover  
 Bishop of Oxford  
 Baroness Parminter (Chair)  
 Duke of Wellington (from 19 January 2022)  
 Lord Whitty  
 Baroness Young of Old Scone

### Declaration of interests

Baroness Boycott  
*Member of steering group Peers for the Planet*  
*Chair, Veg Power*  
*Chair, Feeding Britain*  
*Trustee, Food Foundation*  
*Patron, Sustain*  
 Lord Browne of Ladyton  
*Director, Clean Growth Leadership Network, London (CGLN) - The CGLN is a network formed to promote sustainable economic growth through innovation and the deployment of clean technology*  
 Lord Cameron of Dillington (until 19 January 2022)  
*Family Farming and Landowning interests*  
*Director of an internet travel and data business*  
*Chair of UK Centre for Ecology and Hydrology*  
*President of the Royal Association of British Dairy Farmers*  
 Baroness Chalker  
*No relevant interests declared*  
 Lord Colgrain  
*Partner, Campbell Brothers (farming partnership)*  
*Farm in Kent with houses from which rental income is received*  
*Director, Harris Belmont Charity and Belmont Farms Ltd*  
 Lord Grantchester (from 19 January 2022)  
*Land and property in Cheshire, including a dairy farm in receipt of payments through rural payments agency (EU payments ceased 31 January 2021)*  
*Land and Property in Dumfries and Galloway*  
*Business Interests in Texas, USA*  
 Lord Lilley  
*No relevant interests declared*

**Lord Lucas**

*I am active in matters concerning the environment in and around Eastbourne and nationally I work particularly closely with The Eden Project, South Downs National Park, Eastbourne Borough Council, the Coastal Schools Partnership (which includes St Catherine's College and the Chatsworth Estates)*

**Baroness Northover**

*Member of Board of Pensana plc, which seeks to source and process rare earths for use in renewable technologies.*

**Bishop of Oxford**

*No relevant interests declared*

**Baroness Parminter (Chair)**

*No relevant interests declared*

**Duke of Wellington (from 19 January 2022)**

*My family has various farming interests, both in the United Kingdom and overseas.*

**Lord Whitty**

*Vice President, Environmental Protection UK*

**Baroness Young of Old Scone**

*Chairman, Woodland Trust*

*Commissioner, Food, Farming and the Countryside Commission*

*Vice President, RSPB, Birdlife International and Fauna and Flora International*

*Chairman of Council of the Royal Veterinary College*

*Member of the Steering Group of the Royal Society Multifunctional Landscapes Project*

A full list of Members' interests can be found in the Register of Lords Interests: <https://members.parliament.uk/members/lords/interests/register-of-lords-interests>

**Specialist Adviser****Professor Lorraine Whitmarsh MBE**

*Director of the Centre for Climate Change & Social Transformations (CAST), funded by the Economic & Social Research Council.*

## APPENDIX 2: LIST OF WITNESSES

---

Evidence is published online at <https://committees.parliament.uk/work/1621/mobilising-action-on-climate-change-and-environment-behaviour-change/publications/> and available for inspection at the Parliamentary Archives (020 7219 3074).

Evidence received by the Committee is listed below in chronological order of oral evidence session, and then in alphabetical order. Those witnesses marked with \*\* gave both oral evidence and written evidence. Those marked with \* gave oral evidence and did not submit any written evidence. All other witnesses submitted written evidence only.

### Oral evidence in chronological order

**	Ewa Kmietowicz, Team Leader, Committee on Climate Change	<a href="#">QQ 1–9</a>
**	David Joffe, Head of Carbon Budgets, Committee on Climate Change	<a href="#">QQ 1–9</a>
*	Toby Park, Principal Advisor, Energy, Environment & Sustainability, Behavioural Insights Team	<a href="#">QQ 1–9</a>
*	Rob Hopkins, Transition Network	<a href="#">QQ 10–16</a>
*	Pam Warhurst, Incredible Edible	<a href="#">QQ 10–16</a>
*	Dr Shanon Shah, Faith for the Climate	<a href="#">QQ 10–16</a>
**	Sally Copley, Executive Director for External Affairs, Sustrans	<a href="#">QQ 17–22</a>
*	Fiona Richards, Operations Director England North, the Conservation Volunteers (TCV)	<a href="#">QQ 17–22</a>
*	Ugo Vallauri, Co-founder and Policy Lead, the Restart Project	<a href="#">QQ 17–22</a>
*	Gareth Ellis, Project Director, the Green Valleys	<a href="#">QQ 17–22</a>
*	Barbara Pompili, Minister for Ecological Transition, Government of France	<a href="#">QQ 23–33</a>
*	Faisal Naru, Executive Director, Policy Innovation Centre, RPA/NESG	<a href="#">QQ 34–41</a>
*	Professor Dame Theresa Marteau DBE, Director of Behaviour and Health Research Unit, University of Cambridge	<a href="#">QQ 34–41</a>
**	Carmel McQuaid, Head of Sustainable Business, Marks & Spencer	<a href="#">QQ 34–41</a>
*	Yuriko Koike, Governor of Tokyo	<a href="#">QQ 42–48</a>
*	Paula Lehtomäki, Secretary-General, Nordic Council of Ministers	<a href="#">QQ 49–58</a>
*	Dr Emily Gray, Managing Director, Ipsos MORI Scotland	<a href="#">QQ 59–73</a>

**	Professor Wouter Poortinga, Associate Director of the Centre for Climate Change & Social Transformations (CAST), School of Psychology, Cardiff University	<a href="#">QQ 59–73</a>
*	Paul Ellis, Chief Executive, Ecology Building Society	<a href="#">QQ 74–84</a>
*	Hugo Spowers, Founder and Managing Director, Riversimple	<a href="#">QQ 74–84</a>
**	Trewin Restorick, Chief Executive Officer, Hubbub	<a href="#">QQ 74–84</a>
**	Angela Terry, Chief Executive Officer, One Home	<a href="#">QQ 74–84</a>
*	Professor Ken Peattie, Head of Marketing and Strategy, Professor of Marketing and Strategy, Cardiff Business School	<a href="#">QQ 74–84</a>
*	Professor Jillian Anable, Institute for Transport Studies, University of Leeds	<a href="#">QQ 85–97</a>
*	Chris Boardman, Active Travel Commission for England, Active Travel England	<a href="#">QQ 85–97</a>
**	Stephen Edwards, CEO, Living Streets	<a href="#">QQ 85–97</a>
*	Professor Tim Lang, Emeritus Professor and Founder of Centre for Food Policy, City University	<a href="#">QQ 98–107</a>
*	James Hand, Co-founder of Giki	<a href="#">QQ 98–107</a>
*	Henry Dimbleby, Lead non-executive board member, Defra, and co-founder of Leon restaurant chain	<a href="#">QQ 98–107</a>
*	Sir Patrick Vallance, Government Chief Scientific Adviser	<a href="#">QQ 108–125</a>
*	Tim Lord, Associate Senior Fellow, Tony Blair Institute for Global Change	<a href="#">QQ 108–125</a>
**	Steve Smith, Executive Producer, Picture Zero Productions	<a href="#">QQ 126–129</a>
**	Matt Bourn, Director of Communications, Advertising Association	<a href="#">QQ 126–129</a>
*	Dr Kris De Meyer, Director, UCL Climate Action Unit	<a href="#">QQ 126–129</a>
*	Rt Hon George Eustice MP, then Secretary of State, Department for Environment, Food and Rural Affairs	<a href="#">QQ 130–147</a>
*	Andrew Jackson, Deputy Director of 25 Year Environment Strategy Team, Department for Environment, Food and Rural Affairs	<a href="#">QQ 130–147</a>
*	Emily Cattell, Deputy Director, Office of the Director of Analysis, Department of Environment, Food and Rural Affairs	<a href="#">QQ 130–147</a>
*	Rt Hon Greg Hands MP, then Minister for Energy, Clean Growth and Climate Change, Department for Business, Energy and Industrial Strategy	<a href="#">QQ 148–159</a>

- \* Chris Thompson, Director of Clean Growth,  
Department for Business, Energy and Industrial  
Strategy [QQ 148–159](#)

### Alphabetical list of all witnesses

- Advertising Association - President: Allesandra  
Bellini, Chairman: Philippa Brown, Chief Executive:  
Stephen Woodford [CCE0114](#)
- Advertising Standards Authority [CCE0027](#)
- Aldersgate Group [CCE0113](#)
- Amazon [CCE0095](#)
- \* Professor Jillian Anable, Institute for Transport  
Studies, University of Leeds ([QQ 85–97](#))
- Professor Alison Anderson [CCE0058](#)
- Ashden (Duggan) [CCE0023](#)
- Asthma UK and the British Lung Foundation [CCE0012](#)
- Lorna Benton, Naomi Fallon, Paula Feehan and  
Alicia Walker [CCE0046](#)
- \* Chris Boardman, Active Travel Commission for  
England, Active Travel England ([QQ 85–97](#))
- \*\* Matt Bourn, Director of Communications,  
Advertising Association ([QQ 126–129](#)) [CCE0037](#)
- Bright Blue [CCE0043](#)
- British Psychological Society [CCE0090](#)
- British Retail Consortium [CCE0042](#)
- British Standards Institute [CCE0078](#)
- Cabinet Office [CCE0067](#)
- Carbon Copy [CCE0008](#)
- Carnegie UK [CCE0010](#)
- \* Emily Cattell, Deputy Director, Office of the Director  
of Analysis, Department of Environment, Food and  
Rural Affairs ([QQ 130–147](#))
- The Centre for Energy Ethics [CCE0053](#)
- The City of London Corporation [CCE0038](#)
- Climate Outreach [CCE0111](#)
- Compass Group UK & Ireland [CCE0084](#)
- Competition and Markets Authority (CMA) [CCE0101](#)
- CONSTRAIN [CCE0005](#)
- \* Sally Copley, Executive Director for External Affairs,  
Sustrans ([QQ 17–22](#)) [CCE0070](#)

	Cycling UK	<a href="#"><u>CCE0040</u></a>
	Department for Business, Energy and Industrial Strategy	<a href="#"><u>CCE0059</u></a>
	Department for Business, Energy and Industrial Strategy	<a href="#"><u>CCE0077</u></a>
	Department for Digital, Culture, Media & Sport	<a href="#"><u>CCE0065</u></a>
	Department for Education	<a href="#"><u>CCE0066</u></a>
	Department for Environment, Food and Rural Affairs	<a href="#"><u>CCE0068</u></a>
	Department for Health and Social Care	<a href="#"><u>CCE0061</u></a>
	Department for Levelling Up, Housing and Communities	<a href="#"><u>CCE0063</u></a>
	Department for Transport	<a href="#"><u>CCE0062</u></a>
*	Henry Dimbleby, Lead non-executive board member, Defra, and co-founder of Leon restaurant chain ( <a href="#"><u>QQ 98–107</u></a> )	
	District Councils' Network	<a href="#"><u>CCE0107</u></a>
	Dr Catherine Butler and Dr Karen Parkhill	<a href="#"><u>CCE0054</u></a>
	Dr Adam Whybray	<a href="#"><u>CCE0002</u></a>
	Dr Caroline Moraes	<a href="#"><u>CCE0019</u></a>
	Dr Claire Hoolohan and Dr Alison Browne	<a href="#"><u>CCE0029</u></a>
	Dr Jan Eichhorn	<a href="#"><u>CCE0022</u></a>
	Dr Nathan Abrams, Dr Anaïs Augé, Maciej Nowakowski and Professor Thora Tenbrink	<a href="#"><u>CCE0004</u></a>
	Dr Rachel Harcourt and Prof Suraje Dessai	<a href="#"><u>CCE0044</u></a>
	Dr Sara Collins and Sarah Lawfull	<a href="#"><u>CCE0036</u></a>
	Dr Viktoria Spaizer and Prof Cristina Leston-Bandeira	<a href="#"><u>CCE0016</u></a>
	East Lothian Council	<a href="#"><u>CCE0098</u></a>
	Ecover	<a href="#"><u>CCE0094</u></a>
*	Stephen Edwards, CEO, Living Streets ( <a href="#"><u>QQ 85–97</u></a> )	<a href="#"><u>CCE0110</u></a>
	Ms Pauline Element	<a href="#"><u>CCE0049</u></a>
*	Paul Ellis, Chief Executive, Ecology Building Society ( <a href="#"><u>QQ 74–84</u></a> )	
*	Gareth Ellis, Project Director, the Green Valleys ( <a href="#"><u>QQ 17–22</u></a> )	
	Energy Saving Trust	<a href="#"><u>CCE0047</u></a>
*	Rt Hon George Eustice MP, then Secretary of State, Department for Environment, Food and Rural Affairs ( <a href="#"><u>QQ 130–147</u></a> )	

*	Dr Kris De Meyer, Director, UCL Climate Action Unit ( <a href="#">QQ 126–129</a> )	
	Paula Feehan	<a href="#">CCE0026</a>
	Foreign, Commonwealth and Development Office	<a href="#">CCE0064</a>
	Getir	<a href="#">CCE0072</a>
	Global Sustainability Institute, Anglia Ruskin University	<a href="#">CCE0056</a>
	Government Communication Service, Cabinet Office	<a href="#">CCE0115</a>
	Government Communication Service, Cabinet Office	<a href="#">CCE0076</a>
*	Dr Emily Gray, Managing Director, Ipsos MORI Scotland ( <a href="#">QQ 59–73</a> )	
	Per Grankvist, Chief Storyteller, Viable Cities	<a href="#">CCE0079</a>
	Greater Manchester Combined Authority Health and Social Care Partnership	<a href="#">CCE0109</a>
	Greater Manchester Directors of Public Health	<a href="#">CCE0097</a>
	Green Alliance	<a href="#">CCE0051</a>
	Hampshire County Council	<a href="#">CCE0009</a>
*	James Hand, Co-founder of Giki ( <a href="#">QQ 98–107</a> )	
*	Rt Hon Greg Hands MP, then Minister for Energy, Clean Growth and Climate Change, Department for Business, Energy and Industrial Strategy ( <a href="#">QQ 148–159</a> )	
	Historic England	<a href="#">CCE0086</a>
	HM Treasury	<a href="#">CCE0085</a>
*	Rob Hopkins, Transition Network ( <a href="#">QQ 10–16</a> )	
	Humane Society International UK	<a href="#">CCE0057</a>
	Humanist Climate Action	<a href="#">CCE0071</a>
	IGD (Institute of Grocery Distribution)	<a href="#">CCE0099</a>
	IKEA	<a href="#">CCE0104</a>
	InfluenceMap	<a href="#">CCE0083</a>
	Institute for Public Policy Research (IPPR)	<a href="#">CCE0089</a>
*	Andrew Jackson, Deputy Director of 25 Year Environment Strategy Team, Department for Environment, Food and Rural Affairs ( <a href="#">QQ 130–147</a> )	
**	David Joffe, Head of Carbon Budgets, Committee on Climate Change ( <a href="#">QQ 1–9</a> )	<a href="#">CCE0112</a>
	John Lewis	<a href="#">CCE0092</a>
*	Ewa Kmietowicz, Team Leader, Committee on Climate Change ( <a href="#">QQ 1–9</a> )	
*	Yuriko Koike, Governor of Tokyo ( <a href="#">QQ 42–48</a> )	

- ★ Professor Tim Lang, Emeritus Professor and Founder of Centre for Food Policy, City University  
([QQ 98–107](#))
- ★ Paula Lehtomäki, Secretary-General, Nordic Council of Ministers ([QQ 49–58](#))  
The Local Government Association [CCE0035](#)
- ★ Tim Lord, Associate Senior Fellow, Tony Blair Institute for Global Change ([QQ 108–125](#))  
Manchester City Council and Manchester Climate Change Agency [CCE0102](#)  
Manchester Climate Monthly, Climate Emergency Manchester [CCE0030](#)
- ★ Professor Dame Theresa Marteau DBE, Director of Behaviour and Health Research Unit, University of Cambridge ([QQ 34–41](#))  
McDonald's UK&I [CCE0007](#)
- ★ Carmel McQuaid, Head of Sustainable Business, Marks & Spencer ([QQ 34–41](#)) [CCE0091](#)  
Midlands Connect [CCE0075](#)  
Minister of Agriculture, Environment & Rural Affairs, Northern Ireland [CCE0082](#)  
More in Common [CCE0050](#)  
n0co2.org [CCE0020](#)  
The National Lottery Community Fund [CCE0031](#)
- ★ Faisal Naru, Executive Director, Policy Innovation Centre, RPA/NESG ([QQ 34–41](#))  
National Association of Local Councils (NALC) [CCE0093](#)  
Natural England [CCE0034](#)  
New Weather Institute and Adfree Cities [CCE0015](#)  
NIHR Public Health Policy Research Unit [CCE0024](#)  
Office for National Statistics [CCE0074](#)  
Oxfordshire County Council [CCE0103](#)
- ★ Toby Park, Principal Advisor, Energy, Environment & Sustainability, Behavioural Insights Team ([QQ 1–9](#))
- ★ Professor Ken Peattie, Head of Marketing and Strategy, Professor of Marketing and Strategy, Cardiff Business School ([QQ 74–84](#))
- ★ Professor Wouter Poortinga, Associate Director of the Centre for Climate Change & Social Transformations (CAST), School of Psychology, Cardiff University ([QQ 59–73](#)) [CCE0048](#)

- ★ Barbara Pompili, Minister for Ecological Transition,  
Government of France ([QQ 23–33](#))  
Protect [CCE0088](#)
- ★ Trewin Restorick, Chief Executive Officer, Hubbub  
([QQ 74–84](#)) [CCE0060](#)
- ★ Fiona Richards, Operations Director England North,  
the Conservation Volunteers (TCV) ([QQ 17–22](#))  
Professor Miles Richardson [CCE0001](#)  
Scottish Government [CCE0080](#)
- ★ Dr Shanon Shah, Faith for the Climate ([QQ 10–16](#))
- ★ Steve Smith, Executive Producer, Picture Zero  
Productions ([QQ 126–129](#)) [CCE0055](#)  
Soil Association [CCE0014](#)  
South Cambridgeshire District Council [CCE0105](#)
- ★ Hugo Spowers, Founder and Managing Director,  
Riversimple ([QQ 74–84](#))  
Springer Nature [CCE0011](#)  
Sustrans  
Swale Borough Council [CCE0100](#)
- ★ Angela Terry, Chief Executive Officer, One Home  
([QQ 74–84](#)) [CCE0045](#)  
Tesco [CCE0106](#)  
Tetra Pak [CCE0025](#)
- ★ Chris Thompson, Director of Clean Growth,  
Department for Business, Energy and Industrial  
Strategy ([QQ 148–159](#))  
Trafford Council [CCE0096](#)  
UCL Centre for Behaviour Change [CCE0033](#)  
UCL Plastic Waste Innovation Hub [CCE0032](#)  
UK Sustainable Investment and Finance Association  
(UKSIF) [CCE0028](#)  
UK100 [CCE0108](#)  
Understanding Society, the UK Household  
Longitudinal Study [CCE0013](#)  
University of St Andrews [CCE0052](#)
- ★ Sir Patrick Vallance, Government Chief Scientific  
Adviser ([QQ 108–125](#))
- ★ Ugo Vallauri, Co-founder and Policy Lead, the  
Restart Project ([QQ 17–22](#))
- ★ Pam Warhurst, Incredible Edible ([QQ 10–16](#))

Welsh Government	<a href="#"><u>CCE0081</u></a>
Which?	<a href="#"><u>CCE0039</u></a>
WinACC Winchester Action on the Climate Crisis	<a href="#"><u>CCE0006</u></a>
World Animal Protection	<a href="#"><u>CCE0073</u></a>
World Animal Protection	<a href="#"><u>CCE0041</u></a>
WRAP	<a href="#"><u>CCE0003</u></a>
WSP	<a href="#"><u>CCE0087</u></a>

### APPENDIX 3: CALL FOR EVIDENCE

---

The House of Lords Environment and Climate Change Committee is seeking written submissions for its inquiry into behaviour change in the context of climate change (mitigation and adaptation) and the environment (e.g. biodiversity, water, waste and the circular economy, and air pollution) by Monday 13 December 2021.

The main focus of the inquiry is on behaviour change, though not in isolation, as the Committee is also interested in the wider conditions needed for people to make changes and the sequencing of related policy measures.

For the purposes of the inquiry, behaviour change is understood to include:

- the lifestyle changes that may be required by individuals, households, and communities and other groups, to reach the Government's long-term climate change and environment goals and commitments;
- the drivers of change such as motivations and other factors (like costs and the wider environment (e.g. the availability of transport infrastructure and services));
- the different ways that the Government might facilitate, enable, and promote such changes including through working with other actors (businesses, civil society including community groups, local authorities, and others), and through its role setting the parameters for environmentally responsible business.

The Committee welcomes responses to the questions below. Please do not feel obliged to answer all questions. In fact, submissions focused on a smaller set of questions are preferred. Submissions should not be more than 5,000 words and shorter submissions are welcomed and encouraged. The Committee welcomes supporting examples from all sectors with impacts on climate change and the environment, including sectors related to products/material consumption and travel. In your response you should keep in mind that the culmination of Committee work is often a report with recommendations directed to the UK Government. Finally, please note that all references to behaviour change below should be understood in the context of action on climate change and the environment, except where specified otherwise.

#### Possible lifestyle changes needed

A. What are the areas where lifestyle changes may be most needed to reach the Government's long-term climate change and environment goals and commitments?

#### Public attitudes

B. What is the UK public's level of concern regarding climate change and environment issues, and how does this vary across the population?

C. What is the UK public's appetite for the key lifestyle changes that may be needed to achieve the Government's long-term climate change and environment goals and commitments, and how does this vary across the population?

D. What can be learnt from research into consumer attitudes towards climate change, the environment, and the transition towards green products and services?

## Behaviour change

E. What can be learnt from successful and unsuccessful behaviour change interventions by the UK Government and other government actors (including in other policy or geographical contexts)?

F. What are the pros/cons and limitations of different frameworks and methods for promoting behaviour change?

G. What are the main evidence gaps relating to these frameworks and methods, and how might they be addressed?

H. What are the key ethical considerations for Government policy focused on behaviour change?

I. What roles are there for considerations of fairness, individual freedoms and social responsibilities in the context of behaviour change?

J. How should the Government consider the balance between, or sequencing of, approaches to behaviour change focused on:

- encouraging changes to individual behaviour;
- regulatory approaches focused on individuals and/or businesses which restrict or eliminate choices; and
- fiscal measures (including taxation)?

K. How should Government policy on behaviour change reflect the influence of monetary costs and the wider environment (e.g. the availability of transport infrastructure and services)?

L. Where could the focus of Government efforts on behaviour change add the most value?

## The role of Government and other actors

M. What can be learnt from change delivered by civil society including community groups, and businesses (including from actors based outside the UK)?

N. What should be the respective roles of different actors in delivering behaviour change, including Government, local authorities, businesses, civil society including community groups, and individuals and households?

O. What barriers are faced by civil society, including community groups, and businesses when delivering change?

P. How can Government best work with civil society, including community groups, to deliver behaviour change?

Q. What role is there for marketing and advertising businesses in supporting or enabling behaviour change, and what can other actors learn from them?

R. What role is there for the financial sector in supporting or enabling behaviour change?

S. How can Government and large and small businesses (from across supply chains and the financial sector) work together to support behaviour change?

T. How can the Government best set parameters for environmentally responsible business, in support of behaviour change?

**Government policy**

U. What are the main strengths and weaknesses of current Government policies on behaviour change, and what are the key improvements that could be made?

V. What external and/or material factors could restrict the success of these policies?

W. For behaviour change efforts, how effective is the coordination between government departments and the split of Ministerial and departmental responsibilities, and are sufficient resources in place (staff and budgets)?.

## APPENDIX 4: HIGH-LEVEL SUMMARY OF ENGAGEMENT ACTIVITY IN THIS INQUIRY

---

### Private meeting with Climate Assembly UK participants

On 8 March, the Committee held a private meeting with four people who participated in the Climate Assembly UK (CAUK) as part of its Mobilising Action inquiry. The CAUK participants were invited through *Involve*, a public participation charity involved in the organisation of the Climate Assembly. In the meeting, the Committee discussed the experience the CAUK participants had and asked their opinions on a range of issues relating to their work for the Climate Assembly, including the process of developing the Assembly's final report, and their recommendations for Government in relation to behaviour change for climate and environmental goals. The CAUK participants explained that they had varying levels of knowledge about climate change and the environment and Government policy in these areas before taking part in the Climate Assembly. All four of the CAUK participants said that they learned a lot about climate change and the environment during the Climate Assembly process, and that on reflection they did not know a lot about the issues before taking part.

When reflecting on the deliberative process involved in the Climate Assembly, all the participants agreed that the process was fair, and participants were respectful of each other and their views. They all agreed it had been a very positive experience, which had encouraged them to take steps in their own lives to be greener. They agreed that the final report represented everyone involved in the Climate Assembly. The participants felt that geopolitical events and the COVID-19 pandemic meant that the report did not get as much media coverage as they had anticipated. Some of the participants felt that the Government had not given sufficient attention to the findings in the Climate Assembly report, and that the Assembly process as a whole did not have a great deal of Government buy-in, particularly in comparison to international examples like the French citizens' assembly, which had been commissioned by the French Government.

The Committee and the participants discussed behaviour change for climate and environmental goals. All four of the CAUK participants agreed that fairness needed to be considered in behaviour change interventions, to recognise the different impacts that policies could have on different demographics and socioeconomic groups. They reiterated the conclusions of the Climate Assembly, for example on the value of a levy on frequent flying and taking account of the larger carbon footprint of higher income households. The participants suggested that the public need more education on the issues, explaining that if people were more informed, they may start to make more changes to their behaviour in their everyday lives. The ways in which government could tackle the activities of big businesses which contribute to climate change was also discussed.

### Youth engagement programme, 2022–23

Six schools from across the UK are part of the Committee's pilot youth engagement programme.<sup>650</sup>

---

<sup>650</sup> For more information about the Youth Engagement Programme see Environment and Climate Change Committee, 'Six schools from across the UK selected to take part in youth engagement programme' (13 January 2022): <https://committees.parliament.uk/committee/515/environment-and-climate-change-committee/news/160257/six-schools-from-across-the-uk-selected-to-take-part-in-youth-engagement-programme/>

The schools are:

- St Catherine's College in Eastbourne, England
- Stockton Riverside College in Stockton-on-Tees, England
- Birkenhead Sixth Form College in Birkenhead, England
- Grove Academy in Dundee, Scotland
- Ulidia Integrated College in Carrickfergus, Northern Ireland
- Ysgol Cwm Brombil in Port Talbot, Wales

The schools will continue to work with the Committee until January 2023 and are not attached to the Mobilising Action inquiry, but to date all engagement activities have been related to this inquiry.

On 2 March, the Committee dedicated a meeting to discussing feedback schools had sent in response to several prompt questions related to the Mobilising Action inquiry. There were several recurring themes across feedback from all the schools: they suggested that barriers like affordability and accessibility reduce the individual's ability to make behaviour changes for climate and the environment, community and local action could play an important role in behaviour change, and education and awareness-raising in both formal and informal settings could encourage behaviour change for climate and environmental goals.

On 12 May the Committee met with students from each of the six schools on the Youth Engagement Programme in meetings held via Microsoft Teams. In the meetings, the Committee Members asked students about the questions they would put to Government Ministers in an evidence session at the conclusion of the Mobilising Action inquiry. Many of the students raised points related to the importance of communicating the scale of change required and the role of the public in reaching climate and environmental goals through a variety of forms of media. Many of the students suggested that goods like food and clothing could be labelled with information about their sustainability and the carbon emissions resulting from their production and transportation. Students also suggested that questions to Ministers could relate to the Government leading by example and using a variety of policy instruments like regulation and taxation to encourage behaviour change. Some of the points discussed in the meeting were similar to those raised by students in their initial feedback, in particular their thoughts about the importance of education on climate and environmental issues in both formal and informal settings.

## APPENDIX 5: MINUTES OF PROCEEDINGS ON THE REPORT

---

**Wednesday 7 September 2022**

Present:

Baroness Parminter  
 Baroness Boycott  
 Lord Browne of Ladyton  
 Lord Colgrain  
 Lord Grantchester  
 Lord Lilley  
 Lord Lucas  
 Baroness Northover  
 Bishop of Oxford  
 Duke of Wellington  
 Baroness Young of Old Scone

Apologies were received from Baroness Chalker and Lord Whitty.

The Committee considered the draft Report.

It was moved by the Chair to insert three amendments *en bloc*. The amendments were: first, in the third sentence of the second paragraph of the summary:

“Drawing on the CCC’s assessment, we have identified that 32 per cent of emissions reductions up to 2035 require decisions by individuals and households to adopt low carbon technologies and choose low-carbon products and services, as well as reduce carbon-intensive consumption.[1]

*[Footnote] As we explain in Chapter 2, we are pleased to have worked with the CCC to reach this figure since we adopted a narrower focus on individual and household-level behaviour change compared to the CCC’s Sixth Carbon Budget and 2022 Progress Report.”*

Second, to insert in the second sentence of paragraph 6:

“We have worked with the CCC to calculate that 32 per cent of emissions reductions up to 2035 relies on decisions by individuals and households, while 62 per cent relies on the involvement of the public in some form. some degree of change in people’s behaviour.[1]

*[Footnote] In this report we are concerned with behaviour change by individuals and households, which is a narrower focus compared to the CCC’s important consideration of related decisions by businesses and public authorities and of changes requiring public engagement and consent”*

Third, to insert after the first sentence of paragraph 19:

“The sum of emissions reductions delivered by individual and household-level decisions is 106MtCO<sub>2</sub>e or 32 per cent of all abatement up to 2035.”

The Committee divided on the Chair's first amendment:

*Contents*

Baroness Parminter  
 Baroness Boycott  
 Lord Browne of Ladyton  
 Lord Colgrain  
 Lord Grantchester  
 Lord Lucas  
 Baroness Northover  
 Bishop of Oxford  
 Baroness Young of Old Scone

*Not-contents*

Lord Lilley

The first amendment was agreed to accordingly. The second and third amendments were agreed *en bloc*.

It was moved by Lord Lilley to leave out the summary, as amended, and insert:

“1. Most of the reduction in carbon emissions achieved so far (largely by switching from coal to gas and renewables for electricity generation) has had no direct impact on the way people live (other than the cost of subsidies).

2. It is generally assumed that further progress towards the net zero target will require significant changes in lifestyles—more frugal consumption of carbon intensive goods; eschewing fast fashion and other sumptuary waste; a change in diet away from meat and dairy; less travel by cars and more by bike, foot or public transport; less foreign travel; and lowering the thermostats in homes and buildings.

3. Our Call for Evidence therefore asked about “the lifestyle changes that may be required by individuals, households and communities and other groups to reach the government's long-term climate change and environment goals”.

In particular, we asked about:

“areas where lifestyle changes may be most needed”,

“the UK public's appetite for key lifestyle changes”,

“Government approaches ... to behaviour change focused on: encouraging changes to individual behaviour; regulatory changes .. which restrict or eliminate choices; and fiscal measures”.

4. For a few witnesses, the prospect of government having to induce people to adopt more frugal lifestyles—even if they have collateral health benefits—represents an unwelcome and daunting challenge. They doubt the public appetite for such changes, are reluctant for government to engage in ‘nannying’ and fear it may require intrusive restrictions on freedom of choice.

5. However, most of our expert witnesses assumed substantial life-style changes will be needed to meet net zero and environmental targets and many actually welcome it. Net zero provides them a welcome additional reason to bring about more frugal lifestyles which they believe are desirable in themselves, regardless of climate change, because they are good for the health of body, mind and soul.

6. This enthusiasm for substantial life-style changes tends to dominate the public discourse and predominated among our witnesses - though we received little evidence that it is shared by the general public.

7. The other way households can reduce their carbon emissions (which did not feature in our Call for Evidence) is by adopting new low carbon technologies - e.g. replacing fossil fuelled cars by electric cars, and gas boilers by heat pumps or hydrogen boilers.

Unlike more frugal lifestyles, new technologies do not bring the co-benefits of healthier bodies, minds and souls. Indeed, insofar as these new low carbon technologies are affordable and work as well as the fossil fuel technologies they replace, they enable people to maintain their existing lifestyles which some see as unhealthy and self-indulgent.

So, advocates of more frugal life styles tend to ignore, downplay the importance of, or even oppose, the role of low carbon technologies and emphasise the key role to lifestyle changes.

8. However, the Climate Change Committee (CCC), in its 6th Carbon Budget, projected that only some 10 per cent of the reductions in carbon emissions needed by 2035 on its 'Balanced Pathway' to net zero will require individual lifestyle choices. The vast majority of planned reductions come from adoption of new low carbon technologies by industry and households.

9. The CCC projects that by 2035:

- Upstream: switch to low-carbon options within the supply side (e.g. renewable electricity generation) would produce 39 per cent of emissions abatement.
- Adoption of low carbon technologies: (e.g. electric cars and heat pumps) by individuals and businesses would achieve 45 per cent of emission reductions.
- Energy efficiency: "5 per cent comes from improving efficiency, in use of energy and resources, especially by better insulation of buildings, improving vehicle efficiency and improving efficiency in industry."
- Life-style changes: "Around 10 per cent of the emissions saving in our Balanced Pathway in 2035 comes from changes that reduce demand for carbon-intensive activity. Particularly important in our scenarios are an accelerated shift in diets away from meat and dairy products, reductions in waste, slower growth in flights and reductions in travel demand."

10. The 10 per cent contribution expected from life-style changes is far smaller than generally assumed. This is disappointingly minimal to those who advocate wholesale moves towards more frugal lifestyles.

11. Moreover, 10 per cent is not even a minimum. The CCC emphasise that its 'Balanced Pathway' to net zero is not the only one conceivable—"there are multiple ways to meet the net zero 2050 target". So, despite witness claims that life-style changes are "essential", alternatives involving, for example, more Carbon Capture and Storage could in theory entirely obviate the need to adopt more frugal lifestyles. However, such alternative pathways would probably be significantly more expensive and therefore impact living standards negatively through even higher taxes and costs.

Equally, if more extensive life style changes than those envisaged by the CCC are credibly attainable, that would make possible a pathway to net zero involving less reliance on adopting new technologies.

12. Much of the debate within the Committee has been about whether to highlight how small is the contribution from life-style changes required by the CCC. Instead, we have broadened our definition of behaviour change from meaning just life-style changes (as in our Call for Evidence) to include: a) the adoption of new technologies (electric cars and heat pumps) and b) improved energy efficiency (insulation), as well as c) lifestyle changes.

13. These total an impressive 60 per cent of the emission reductions needed on the Balanced Pathway by 2035. Readers should be aware that within that 60 per cent only one sixth (10 per cent) is provided by lifestyle changes—the heavy lifting is done by adoption of new technologies.

14. If, as we are assured, electric cars become as convenient as fossil fuelled cars, a switch from diesel to electric can no more be described as a lifestyle change than a switch from petrol to diesel. By contrast, everyone accepts that riding a bike or walking instead of driving a car is a genuine lifestyle change. Likewise, if, as we are assured, heat pumps plus insulation will be as effective as gas boilers, adopting them cannot be described as a lifestyle change—whereas setting the thermostat at a lower temperature and wearing warmer clothes would be a change of lifestyle.

15. Moreover, the adoption of new technologies like electric cars and heat pumps do not bring the co-benefits which motivate many advocates of a more frugal low carbon lifestyle.

16. Indeed, new technologies like electric cars and heat pumps will enable us to perpetuate current lifestyles (if we can still afford them). Once electricity is fully decarbonised (by 2035) there will be virtually no climate change reason for owners of electric cars to drive less or for homes heated by heat pumps or hydrogen to be kept at a cooler temperature. Hence the lack of enthusiasm for promoting new technologies among the more ardent advocates of lifestyle changes. The case for healthier and more frugal lifestyles will depend solely on their intrinsic benefits.

17. Because our Call for Evidence was focussed on lifestyle changes rather than the adoption of new technologies and energy efficiency we received little evidence about them. Hence the Committee's decision to carry out a future study of changes required to reduce carbon emissions from domestic homes.

18. The government is driving the switch to electrification of cars and home heating—not by persuasion or applying the science of behaviour change—but simply by announcing the elimination of choice of fossil-fuel based options respectively in 2030 and 2035.

19. The Committee endorses this approach and calls for the government to “set dates for banning the use of technologies with the highest emissions and environmental impacts where suitable alternatives exist or are foreseeable”. At the same time, we criticise the government for putting “too great reliance on as yet undeveloped technologies to get us to net zero”.

Unfortunately, because adoption of new technologies was not part of our initial focus, we have not been able to identify any foreseeable new technologies the government should rely on enough to ban conventional alternatives, nor any undeveloped technologies which they should rely on less.

20. The extent to which the public will voluntarily adopt even the modestly frugal lifestyle changes requires by the CCC - even if given clear and persuasive messages about what they should do - is not clear.

21. Our enquiries into the science of behaviour change revealed only that all factors are relevant.

22. We were urged to apply lessons of the COVID pandemic for bringing about widespread behaviour change. However, those were a short term response to a short term emergency. Covid posed an immediate threat to people's lives whereas the impact of climate change is decades away. We caution against trying to replicate the pandemic approach, especially in the light of warning and advice - unexpectedly - from Sir Patrick Vallance "to avoid messages based on fear or disgust" and to rely on people's common sense. Since "people were pretty smart about knowing what to do ... They decided not to interact quite so much - irrespective, frankly, of how soon or late governments decided to implement changes. The same is true here [with climate change]".

23. Although life-style changes are expected to make only a modest contribution on the Balanced Pathway to net zero, the CCC did identify scope for savings from:

*a. an accelerated shift in diets away from meat and dairy products.*

Although the Committee believes "it may ultimately be necessary to use taxes in this area we that it is not the right moment to introduce a tax on emissions associated with ... food". As St Augustine might have said: 'Make us vegetarian-but not yet'!

The CCC envisage a reduction in meat consumption of between 20 per cent and 35 per cent. We did not investigate whether similar reductions in bovine methane emissions could be achieved by selective breeding and changing animal feedstuffs, thereby protecting our cattle farmers.

*b. reductions in waste.*

The Committee endorsed criticisms of cheap 'fast fashion' and other forms of sumptuary excess but did not consider whether this will deprive many people in developing countries of a livelihood.

*c. slower growth in flights.*

Although the Committee calls on Ministers to "lead by example" on climate policy the Committee rejected a proposal that the Committee itself should set an example by members pledging to make no more than two overseas flights each in future years.

*d. reductions in travel demand.*

So long as some fossil fuelled vehicles remain in use and/or electricity has not been completely decarbonised, emission reductions could be achieved by encouraging people to walk, bike or use public transport instead of driving. However, we received evidence (not included in the body of the report) that the overwhelming majority of fuel consumption is on journeys which are longer than could be undertaken by bike or on foot. So, a switch to 'active travel' for local journeys would make negligible savings. The case for encouraging 'active travel' rests primarily on its health benefits.

Once electricity generation has been fully decarbonised there will be no net zero reason for owners of electric cars to restrict their mileage or switch to bike, foot or public transport.”

The Committee divided:

*Contents*

Lord Lilley

*Not-contents*

Baroness Parminter  
 Baroness Boycott  
 Lord Browne of Ladyton  
 Lord Colgrain  
 Lord Grantchester  
 Lord Lucas  
 Baroness Northover  
 Bishop of Oxford  
 Baroness Young of Old Scone

The amendment was disagreed to accordingly.

The Committee agreed to publish the Report, with amendments.

**APPENDIX 6: GLOSSARY**

---

25 YEP	25 Year Environment Plan
ASA	Advertising Standards Authority
BEIS	Department for Business, Energy and Industrial Strategy
BIT	Behavioural Insights Team
BPS	British Psychological Society
CAI	Climate Action Implementation Committee (Cabinet Office)
CAS	Climate Action Strategy Committee (Cabinet Office)
CAST	Centre for Climate Change and Social Transformations
CAUK	Climate Assembly UK
CCC	Committee on Climate Change
CCUS	Carbon capture, utilisation and storage
CMA	Competition and Markets Authority
COM-B	Capability, opportunity, motivation: behaviour (model for behaviour change)
DAERA	Northern Ireland Department of Agriculture, Environment and Rural Affairs
DCMS	Department for Digital, Culture, Media & Sport
Defra	Department for Environment, Food and Rural Affairs
DfE	Department for Education
DfT	Department for Transport
DHSC	Department of Health and Social Care
DLUHC	Department for Levelling Up, Housing and Communities
EAST	Easy, attractive, social and timely (model for behaviour change)
ECO	Energy Company Obligation
ELMS	Environmental Land Management Schemes
EPC	Energy Performance Certificate
EPR	Extended Producer Responsibility
EV	Electric vehicle
FCDO	Foreign, Commonwealth and Development Office
FTE	Full-time equivalent
GBSF	Government Buying Standards for Food and Catering Services
GCS	Government Communication Service
GCSA	Government Chief Scientific Adviser
HPRU	Health Protection Research Units

IGD	Institute for Grocery Distribution
IPPR	Institute for Public Policy Research
ISD	Institute for Strategic Dialogue
ISM	Individual, Social and Material (model for behaviour change)
LGA	Local Government Association
NALC	National Association of Local Councils
NIHR	National Institute for Health Research
NSIG	Climate Change National Strategy Implementation Group
ONS	Office for National Statistics
SAGE	Scientific Advisory Group for Emergencies
SPI-B	Independent Scientific Pandemic Insights Group on Behaviours
SPT	Social Practice Theory (model for behaviour change)
SUV	Sports utility vehicle
TCV	The Conservation Volunteers
UCL	University College London
UKHSA	UK Health Security Agency
UKSIF	UK Sustainable Investment and Finance Association
ULEV	Ultra-low emissions vehicles
ULEZ	Ultra-low emission zone