



› Demanding action ›

Why food policy must deliver sustainable diets, shorter supply chains and prevent food waste

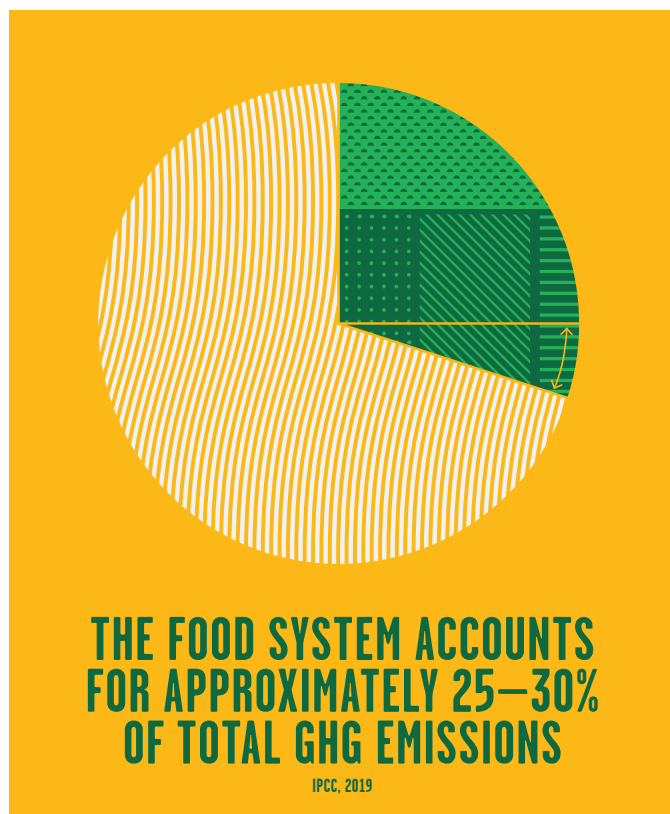
KEY TAKEAWAYS

- Demand-side changes to the food system can play a significant role in helping achieve global greenhouse gas emissions reductions, spare land and improve human health
- Dietary change (including reducing meat and dairy consumption), shortening supply chains and combating food waste are the main areas for demand-side intervention
- Effective demand-side policy measures would combine informing and empowering with substantive regulatory and fiscal policy measures to develop healthy and sustainable food environments, implemented as part of a comprehensive range of measures, rather than in isolation.

1. THE IPCC'S SPECIAL REPORT ON CLIMATE CHANGE AND LAND: A LANDMARK MOMENT FOR POLICY CHANGE

The ultimate goal of the food system must be to support environmental regeneration and nurture human health. It currently threatens both^{1,2}. The food system is a leading cause of biodiversity loss and deforestation², drives the depletion and disruption of the nitrogen and phosphorus cycles³ and uses up an incredible amount of water⁴.

As the IPCC Special Report on Climate and Land concludes, the global food system also generates 25-30% of total greenhouse gas emissions¹. Building on the work of the IPCC's Special Report on Global Warming of 1.5°C the Special Report on Climate Change and Land demonstrates the scale of the food system's impact on our climate and its vulnerability to the effects of climate change on food production.



The report outlines how the climate crisis is already affecting the food system, including exacerbating global food inequality¹, shrinking wheat yields in India⁵ and driving environmentally damaging rice cultivation in China⁶. And at up to 30% of total GHG emissions, it is clear that food production and consumption are huge contributors to the climate emergencyⁱ. These emissions are growing, with diet shifts across the world resulting in a larger greenhouse gas emissions footprint and unhealthy outcomes^{1,2}. The implications are clear and the situation grave. To meet the commitment to a warming limit of 1.5°C made under the Paris Climate Agreement, widespread, deep ranging and radical transformation of the food system is needed.

TACKLING DEMAND

In the Special Report on Climate Change and Land, the IPCC strikingly outlines the vast **mitigation and adaptation** potential of approaches which use changing demand as a tool to transform the food system and land use. The report highlights three key areas that show the most promise for demand-side intervention: dietary change, in particular towards diets lower in meat and dairy, shorter supply chains, and reducing food waste. The IPCC's report concludes there is **robust evidence and high agreement** that demand-side changes can help to achieve global greenhouse gas emissions reductions and improve human health¹. With the IPCC emphasising in the strongest possible terms the vital role for improved end-use efficiency for a food system in a climate crisis, **the quality and weight of the evidence justify radical, immediate and wide-ranging policy action.**

Supply side measures focus on growing more food, demand side measures focus on using the food we do grow more effectively. Currently, policy discussion overwhelmingly focusses on supplyⁱⁱ, and few concrete policy recommendations take advantage of the massive potential of changes to food demand for mitigating environmental breakdown. This is a missed opportunity. Demand-side measures such as mainstreaming sustainable diets, shortening supply chains and tackling food waste hold enormous potential for achieving fast, effective and long-lasting decarbonisation of the food system and agriculture sector, as well as considerable co-benefits to land-sparing, conservation and ecosystem restoration, human health and wellbeing.

i This estimate includes farm emissions, land-use and land use change emissions and supply chain emissions

ii 'Sustainable intensification' and 'climate smart agriculture' approaches dominate international discourse and practice in food system reform. Building on a long-standing food security agenda, these centre on producing more food with less resources, usually using technological innovation approaches⁴²

CHANGES TO PUBLIC DIETS OFFER GREAT PROMISE FOR SIGNIFICANT EMISSION REDUCTIONS, COMPARED TO PRODUCTION CHANGES TO ALL CROP AND LIVESTOCK PRODUCTION AROUND THE WORLD

IPCC, 2019



2018 1.5 degrees report suggests. Demand-side measures also provide massive opportunities for coordinated, high-impact policy interventions. For example, diets that are good for the planet are also good for people², shorter, low emission supply chains can boost regional food economies⁸ and reducing food waste lowers greenhouse gas emissions and can improve food security¹.

In addition to climate mitigation and land-sparing benefits, demand-side measures may offer considerable co-benefits. In countries that eat a lot of meat and dairy, shifting consumption towards sustainable, plant-based foods can provide co-benefits in terms of improved public health. Reducing supply chain and household food waste offers opportunities to shrink the agricultural footprints and local environmental impacts such as nitrogen pollution while sparing land for afforestation and rewilding. Meanwhile, nurturing food production to shorten supply chains and encouraging public institutions to source food from their region offers opportunities to increase employment opportunities in the food sector and cultivate regional prosperity and resilience. While interventions will always need to be contextual, and the challenges, solutions and responsibilities will differ for higher-income and lower-income countries, demand-side measures offer substantial opportunities to transform the food system⁸.

The IPCC report clearly outlines the scale of the problem and the scope for potential change. Taken with other, recent, high-profile research demonstrating the overlap between diets which are conducive to both public health and planetary health^{1,2,9}, there is a strong case for intervention. But how could this be put into practice?

3. WHAT COULD GOOD POLICYMAKING ON DEMAND-SIDE FOOD SYSTEM MEASURES LOOK LIKE?

TAKE RESPONSIBILITY FOR COLLECTIVE ACTION

Patterns of environmentally damaging lifestyles are socially, institutionally, and infrastructurally configured. Despite a well-promoted culture of 'consumer choice', the corporate-controlled food system erodes our ability to behave in ways that support our environment: for example, year-round availability of air-freighted seasonal foods; redundant "use by" labels leading to unnecessary household food waste¹⁰; and an offer by retailers that drives animal-protein consumption – only 14% of ready meals and 30% of high-street sandwiches being meat or fish free¹¹.

But what action to take, and where? In line with IPCC's conclusions, this and subsequent reports by Feedback will spotlight demand-side policy interventions that can deliver for people and the planet, across three areas.

- The Cow in the Room: a call for policy for sustainable diets
- Re-regionalising Food Economies: public procurement for shorter supply chains
- Enough is enough: public policy to prevent food waste

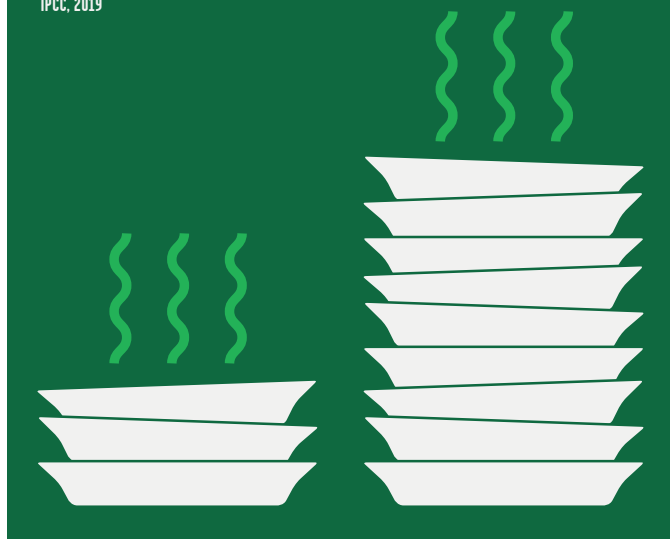
This policy brief considers a central question: If policymakers were to take the potential of demand-side food system measures as seriously as is warranted by the IPCC's findings, what should they do? The aim of this brief is not to draft a comprehensive roadmap for policy intervention, but to clearly show the case for innovative demand-side policy approaches as part of a broader transformation of the food system. This brief provides a primer on demand-side measures, outlines what good evidence-based, demand-side food policy could look like, and debunks common excuses for inaction.

2. DEMAND-SIDE MEASURES FOR THE GLOBAL FOOD SYSTEM: A PRIMER

Demand-side interventions in the food system to support climate and biodiversity goals have a dual impact. On the greenhouse gas (GHG) emission side, by reducing demand for particularly damaging forms of food production, or for overproduction, they may reduce the overall emissions burden of the food system, leaving greater 'room for manoeuvre' for other sectors of the economy in their decarbonisation process⁷. On the side of biodiversity preservation and restoration, they may spare land for alternative uses: this is particularly relevant in light of the enormous reliance on carbon dioxide removal, the IPCC's

BETWEEN 1961 & 2011 GLOBAL FOOD WASTE TRIPLED

IPCC, 2019



conventions, routines and institutions^{13,14} that shape the way people engage with food and food waste – encouraging people to waste less food at home, while important, is just the tip of the iceberg¹⁴.

THE THREE FEATURES OF EFFECTIVE DEMAND-SIDE FOOD POLICY

What would effective demand-side food policies look like? Firstly, they would be **implemented as part of a comprehensive range of measures, not in isolation**. The transformation of the food system will require a suite of coordinated policy approaches, from a variety of institutions, incorporating both supply-side and demand-side interventions^{2,8,15}. Discussions around relevant potential demand-side policies, for example, tax, have been reductive and damaging precisely because the measures are considered in isolation and not part of a coherent policy platform.

Secondly, to maximise their potential, there needs to be **coordination across-government finding synergy with health, land-use, climate, rural livelihoods and economic development**. The current approaches to food-policy are disjointed, particularly around environmental and health aims.

The co-benefits between health and environmental interventions are mutually reinforcing, and policy should amplify these “win-win” opportunities. For example, the UK’s current dietary guidance represents a 78% reduction in consumption of red meat¹⁶. However, while “Defra follows Department of Health guidelines on healthy diets, it has no policies strictly around promoting the reduction of meat consumption”¹⁷. Better cross-governmental coordination is vital for food system policy¹⁸, and it is, therefore, encouraging to see emerging collaboration initiatives (for example, the UK’s commitment to a “farm-to-fork” review of its food system¹⁹).

The economic benefits of a coordinated approach are substantial too. For example, in the UK, for every £1 spent on local and seasonal produce under the Soil Association’s Food for Life Scheme there is a £3 return in social, economic and environmental value, primarily delivered locally²⁰. In Denmark, a health and environmentally driven organic public procurement initiative supported a 68% increase in land-area under organic farming, a surge in the proportion of healthy, organic food served in public kitchens (up to 89% of meals in Copenhagen) and increased the turnover of the organic food sector²¹. For food waste, there is an enormous economic benefit to be gained from stemming the \$1 trillion-dollar losses¹ resulting from our food system’s structural profligacy.

A key future challenge for the food system is to develop food “environments” that favour sustainable food cultures: low waste, low carbon, low impact; nourishing, ecological and diverse. A useful analogy is found in progressive approaches from public health, for example, “obesogenic environments”¹² (i.e. the pool of factors that create the conditions conducive of childhood obesity).

Arguably our current food system has created a food environment which promotes poor health, high greenhouse gas emissions and large-scale biodiversity loss.

Currently, however, the dominant policy paradigm remains centred around individual behaviour change¹³. This framing views people only as consumers and limits the role of government to inducing people to make “better” environmental decisions for themselves. This approach diverts vital attention from how institutions and corporations shape opportunities and options, locking people into contributing to environmentally negative outcomes.

Proper, integrated, demand-side policy approaches can break out of this mould and go beyond merely “nudging” or “encouraging” citizens to make better “choices”. They can set new norms, channel taxpayer finance towards shared public goods and both incentivise positive action from the private sector and disincentivise or ban approaches with poor outcomes. There is a need for a policy that focuses on the everyday constraints,

Thirdly, **it would be bold, and it would be brave.** Broadly, demand-side food policy remains stuck with “soft” policy measures such as education campaigns and point-of-purchase labelling. These measures continue to place responsibility on consumers and have variable effectiveness^{22,23}, particularly for marginalised groups^{23,24}. The full potential of these softer measures comes when implemented alongside other interventions, including regulation and fiscal (dis)incentives¹⁸. Within public health and diets, soft measures remain popular among policymakers, in part as they are generally backed by industry (or at least acceptable to industry, that is to say, does not threaten their profit making) and perceived as low risk by politicians worried about public perception. Research shows that the availability of nudges and soft policy approaches provides false-hope to policymakers, making them less likely to advocate for measures with actual impact²⁵.

Similar patterns occur when tackling food waste, where voluntary agreements among interested businesses dominate. For example, while undoubtedly a leader in terms of government-supported voluntary targets, data suggests that the UK’s food waste reduction has

stalled²⁶, and a ramping up of regulatory enforcement of waste reduction is necessary to kick start action, as the UK Government’s recent Resources and Waste Strategy acknowledges²⁷. The Food Use hierarchy, which guides effective reduction of edible food waste and disposal of edible food waste, is not strictly followed by businesses, which continue to send large quantities of edible food to Anaerobic Digestion²⁸. And the incompatibility between supermarket-driven product conformity and the realities of farming means risk is driven up the supply chain, leading to vast quantities of waste before produce leaves the farm gate²⁸.

An effective net-zero food-system policy would incorporate demand-side measures from across the “policy toolkit” (Table 1) and robustly evaluate and review the impact. It would not leave businesses to fill the void in a piecemeal way within the constraints presented by their pursuit of profit, without proper governance, support or direction. And to break out of collective policy inaction, it would follow a “worst first” approach²⁹ - targeting the most damaging foods and the most glaring inefficiencies, disparities and detrimental outcomes.

TABLE 1 DEMAND-SIDE POLICY LEVERS FOR DIETS, SHORTER SUPPLY CHAINS AND FOOD WASTE

| | Broad approach | Example demand-side policy levers |
|---------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Changing Diets | Better governance of food consumption | Regulation and standards covering public procurement, advertising, urban planning (i.e. location of fast-food outlets), supermarkets |
| | Fiscal incentives | VAT exemptions for healthy food services, consumer reward schemes |
| | Fiscal disincentives | Taxation of environmentally damaging foods |
| | Provide options | Requirements for minimum vegan and vegetarian options |
| | Foster transparency, collaboration and action by food businesses to mainstream sustainable practices | Voluntary agreements, setting targets for business |
| | Inform, educate, promote or empower institutions and citizens | Labelling, public dietary campaigns |
| Shortening supply chains | Use public procurement to boost regional food economies | Regulation, (voluntary) standards, use of contracts to shape supply chains, Green Public Procurement guidance and regulation |
| | Promote regional/seasonal/local foods | Awareness campaigns, social marketing etc. |
| Reducing food waste | Regulation to discourage waste-generating practices | Taxation, regulation, enforcement of food waste hierarchy, regulatory watchdogs for unfair trading practices |
| | Foster transparency, collaboration and action by food businesses to mainstream sustainable practices | Voluntary agreements, mandatory reporting from farm to fork, date labelling initiatives, packaging standards, setting targets for business |
| | Inform, educate, promote and empower institutions and citizens | Awareness campaigns, social marketing etc. |

4. EXCUSES FOR INACTION: DEBUNKING MYTHS ABOUT DEMAND- SIDE INTERVENTIONS

The IPCC Report on Climate Change and Land does not address the nature and scale of the implementation challenge, or the implied changes in social norms, lifestyles that demand-side approaches can entail. Together, these factors mean that the mitigation potential of demand-side measures is likely lower than the current technical estimates. These challenges often surface in public discourse around food policy as “a lack of evidence”, “unpopularity” and ideological concerns around the “role of government in lifestyles” (see for example³⁰). This final section of the report offers a riposte to these common arguments against demand-side interventions in the food system.

THE EVIDENCE PROBLEM

A key challenge in generating an evidence-based policy for demand-side climate interventions is that this is a comparatively new policy field, creating a need for an enhanced research agenda around demand-side climate mitigation options³¹. But while action should be informed by evidence, building an evidence base requires action³². How do policymakers escape this circular problem?

Luckily there are substantial analogous evidence bases to draw on. Public health measures into diets are common, wide-ranging and span multiple countries and approaches (Table 2). Within the waste sector, experiences with measures such as landfill taxes in New Zealand, the Netherlands and the UK can also inform further action on food waste. It is also worth noting that citing a lack of evidence is essentially a way of managing the risk of policy failure. So as small shifts in consumption patterns carry enormous potential for significant, cost-effective environmental and health benefits⁵ and demand-side climate policies carry fewer risks than supply-side innovation³³, rapid action for the climate crisis is sensible, low-risk and warranted.

WHEN COUPLED WITH AWARENESS-RAISING, DEMAND-SIDE INTERVENTIONS GARNER SUPPORT

In 2012, following Mayor Michael Bloomberg’s proposal to regulate the size of sugary drinks served in New York, a group called The Centre for Consumer Freedom took out a full-page, colour advert in the New York Times depicting Bloomberg as a nanny³⁴. Governments (and environmental charities)³⁵ often shy away from telling people what to do for fear of this sort of public reaction. However, what is frequently obscured by the media headlines, is that the alternative to governments and civil society taking an active, accountable role in food policy, is that businesses take an active, but unaccountable one. The Centre for Consumer Freedom is not a citizen-led organisation; it is a fast-food, meat, alcohol and tobacco and lobbying firm with donors such as Coca Cola, Cargill and Phillip Morris³⁶.

Behind the editorial outrage, the evidence shows that when coupled with awareness-raising, demand-side interventions are widely supported — 80% of the UK public is supportive of the sugar tax³⁷. There was an unprecedented, positive, response to the government consultation on using tax to tackle plastic waste and huge engagement on demand-side plastic policy³⁸. Even on such a hot-button issue such as meat, research by Chatham House covering Brazil, China, the US and the UK, found that that it is government’s role to act on this issue and public resistance to policy intervention would fade³⁹. This finding extends to areas such as school food procurement: despite angry comment pieces in the media, following successful trials public schools in New York and Baltimore, other American cities are reducing the amount of meat they serve⁴⁰.

Taken together, this suggests a fruitful approach could be to combine education and empowerment with substantive policy measures. Steps to democratise decision-making around the food system (the incorporation of a Citizen’s assembly within the UK’s new food strategy review, for example¹⁹), are therefore, really encouraging.

TABLE 2 INTERVENTIONS IN WORLD DIETS, MAPPED AGAINST THE NUFFIELD LADDER OF POLICY INTERVENTIONⁱⁱⁱ. 41

| | Examples | Examples of implementation |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Eliminate choice | Sanitary and phytosanitary trade bans | Worldwide |
| Restrict choice | (Post) War Rationing Age restrictions for alcohol purchase Fast food planning restrictions | UK, USA, Germany, Poland Widespread UK (Greater London Authority) |
| Alter choices by disincentives | The sugar tax Saturated fat tax Junk food tax (high-calorie snacks) Tax on alcohol Junk Food Ad Bans Value Added Tax (Goods and Services Tax) | Mexico, UK Denmark Mexico Widespread UK, Sweden and Norway* Widespread |
| Alter choice through incentives | Free milk in schools Vouchers for healthy food Food subsidies | UK UK (Healthy Start), USA (SNAP) Widespread (e.g. bread in Egypt) |
| Guide choice by changing the default | Government facilitated salt reduction Quality-focused, local or health criteria in public procurement | 75 countries worldwide Widespread, level of ambition varies however |
| Enable choice | (Mandatory) provision of healthy/sustainable options | Portugal** |
| Provide information | Energy drink labels Government alcohol guidelines Nutrition labels on food Dietary guidance | UK Widespread Widespread Most countries and international bodies (i.e. WHO) |
| Do nothing | | Widespread |

* Sweden and Norway bans are defacto bans – both countries ban all advertisements to children

** Compulsory vegetarian/vegan options in public canteens

REFERENCES

1. IPCC. *IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems*. (2019).
2. Willett, W. *et al.* Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems. *Lancet (London, England)* **393**, 447–492 (2019).
3. Rockström, J. *et al.* A safe operating space for humanity. *Nature* (2009). doi:10.1038/461472a
4. Vermeulen, S. J., Campbell, B. M. & Ingram, J. S. I. Climate Change and Food Systems. *Annu. Rev. Environ. Resour.* (2012). doi:10.1146/annurev-environ-020411-130608
5. Gupta, R., Somanathan, E. & Dey, S. Global warming and local air pollution have reduced wheat yields in India. *Clim. Change* **140**, 593–604 (2017).
6. Liu, Z. *et al.* Shifts in the extent and location of rice cropping areas match the climate change pattern in China during 1980–2010. *Reg. Environ. Chang.* **15**, 919–929 (2015).
7. Bajželj, B. *et al.* Importance of food-demand management for climate mitigation. *Nat. Clim. Chang.* **4**, 924–929 (2014).
8. Searchinger, T. *et al.* *Creating a Sustainable Food Future: A Menu of Solutions to Feed Nearly 10 Billion People by 2050*. (2018).
9. Godfray, H. C. J. *et al.* Meat consumption, health, and the environment. *Science* **361**, (2018).
10. Feedback. *No use crying over spilled milk? How inaccurate date labels are driving milk waste and harming the environment*. (2019).
11. Eating Better. *Sandwiches Unwrapped*. (2019).
12. Egger, G. & Swinburn, B. An 'ecological' approach to the obesity pandemic. *BMJ* **315**, 477–480 (1997).
13. Shove, E. Beyond the ABC: Climate Change Policy and Theories of Social Change. *Environ. Plan. A Econ. Sp.* **42**, 1273–1285 (2010).
14. Spurling, N., McMeekin, A., Shove, E., Southerton, D. & Welch, D. *Interventions in practice: re-framing policy approaches to consumer behaviour*. (2013).
15. Scherer, L. & Verburg, P. H. Mapping and linking supply- and demand-side measures in climate-smart agriculture. A review. *Agron. Sustain. Dev.* **37**, (2017).
16. Scarborough, P. *et al.* Eatwell Guide: modelling the dietary and cost implications of incorporating new sugar and fibre guidelines. *BMJ Open* **6**, e013182 (2016).
17. Carter, W. The New Vegetarianism: why we need a different approach to reducing meat consumption. *The New Statesman* (2016).

iii Whether a public health measure is acceptable depends on whether or not it is 'proportionate'. The Nuffield Intervention Ladder shows the different ways in which public health interventions can affect people's choices⁴¹. Interventions lower down the ladder are considered "softer" policy options, as they are less intrusive.

18. Mozaffarian, D., Angell, S. Y., Lang, T. & Rivera, J. A. Role of government policy in nutrition—barriers to and opportunities for healthier eating. *BMJ* k2426 (2018). doi:10.1136/bmj.k2426
19. Department for Environment Food and Rural Affairs. Developing a national food strategy: independent review 2019 – terms of reference. (2019). Available at: <https://www.gov.uk/government/publications/developing-a-national-food-strategy-independent-review-2019/developing-a-national-food-strategy-independent-review-2019-terms-of-reference#scope>. (Accessed: 3rd July 2019)
20. New Economics Foundation. *The Benefits of Procuring School Meals through the Food for Life Partnership*. (2011).
21. Miljø- og Fødevarerministeriet. *Vækstplan for dansk økologi*. (2018).
22. Mozaffarian, D. *et al.* Population Approaches to Improve Diet, Physical Activity, and Smoking Habits. *Circulation* **126**, 1514–1563 (2012).
23. Pearson-Stuttard, J. *et al.* Comparing effectiveness of mass media campaigns with price reductions targeting fruit and vegetable intake on US cardiovascular disease mortality and race disparities. *Am. J. Clin. Nutr.* **106**, 199–206 (2017).
24. Pearson-Stuttard, J. *et al.* Reducing US cardiovascular disease burden and disparities through national and targeted dietary policies: A modelling study. *PLOS Med.* **14**, e1002311 (2017).
25. Hagmann, D., Ho, E. H. & Loewenstein, G. Nudging out support for a carbon tax. *Nat. Clim. Chang.* **9**, 484–489 (2019).
26. WRAP. *Courtauld Commitment 3: Delivering action on waste*. (2017).
27. H.M. Government. A Green Future: Our 25 Year plan to improve the environment. *UK Government* (2018).
28. Feedback. *The food waste scorecard: an assessment of supermarket action to address food waste*. (2018).
29. Harwatt, H. Including animal to plant protein shifts in climate change mitigation policy: a proposed three-step strategy. *Clim. Policy* **19**, 533–541 (2019).
30. BBC. Tory leadership: Boris Johnson promises review of 'unhealthy food taxes'. *BBC Online* (2019).
31. Creutzig, F. *et al.* Towards demand-side solutions for mitigating climate change. *Nat. Clim. Chang.* **8**, 260–263 (2018).
32. Garnett, T., Mathewson, S., Philip, A. & Fiona, B. Policies and actions to shift eating patterns: What works? A review of the evidence of the effectiveness of interventions aimed at shifting diets in more sustainable and healthy directions. *Food Clim. Res. Netw.* **85** (2015). doi:10.1186/s12889-016-3988-7
33. von Stechow, C. *et al.* 2 °C and SDGs: united they stand, divided they fall? *Environ. Res. Lett.* **11**, 034022 (2016).
34. The Centre for Consumer Freedom. New Yorkers need a mayor, not a nanny. *The Centre for Consumer Freedom* (2012). Available at: <https://www.consumerfreedom.com/press-releases/full-page-advertisement-in-the-new-york-times-condemns-nanny-bloombergs-latest-attack-on-personal-responsibility/>. (Accessed: 5th July 2019)
35. Laestadius, L. I., Neff, R. A., Barry, C. L. & Frattaroli, S. "We don't tell people what to do": An examination of the factors influencing NGO decisions to campaign for reduced meat consumption in light of climate change. *Glob. Environ. Chang.* **29**, 32–40 (2014).
36. Warner, M. Striking Back at the food police. *The New York Times* (2005).
37. McKenna, H. *Are we expecting too much from the NHS?* (2018).
38. Elgot, J. UK public backs tough action on plastic waste in record numbers. *The Guardian* (2018).
39. Wellesley, L., Happer, C., Froggatt, A. & Philo, G. Changing Climate, Changing Diets Pathways to Lower Meat Consumption. *Chatham House Rep.* **64** (2015).
40. Criss, D. New York public schools to have 'Meatless Mondays' starting this fall. *CNN* (2019).
41. Nuffield Council on Bioethics. *Public health: ethical issues*. (2007).
42. Foley, J. A. *et al.* Solutions for a cultivated planet. *Nature* (2011). doi:10.1038/nature10452

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