FRC Food Policy Discussion Paper

New policy priorities for Sustainable Diets: Views from a survey of academic and civil society experts



Food Research Collaboration

an initiative of **Centre for Food Policy** Shaping an effective food system Bella Driessen Rosalind Sharpe Antony So

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Foreword by Pamela Mason

The concept of Sustainable Diets, though debated in academia and civil society organisations with an interest in food, is not high on the policy agenda in the UK. Gaining a profile in the 1980s due mainly to the pioneering work of the nutritionists Gussow and Clancy, who pointed to the importance of a healthy diet for both people and planet, Sustainable Diets have not generally been considered by policymakers in the UK.

In more recent times, academics have tackled the thorny issue of defining what is meant by a Sustainable Diet. Although 'sustainable' is often associated with environmental impacts, and within those, greenhouse gas emissions, Sustainable Diets have rightly been defined as encompassing far more than their environmental impacts, as important as these are.

Quite simply – and indeed it is not simple at all – no diet can be sustainable unless it is healthy, accessible and socially acceptable for every citizen on earth; healthy for the planet, in terms of use of natural resources, living within our ecosystem boundaries and, critically, maintaining biodiversity; and healthy for the people who work in the food system, whilst rewarding them fairly for this most vital work in the world.

Despite the huge challenges we face, with poor diet being responsible for one in five deaths globally, food systems accounting for more than one third of global greenhouse gas emissions, and farmers and primary food producers getting only 8-10% of the gross value added to food, policy-makers have been reluctant to engage with the idea of Sustainable Diets.

In this context, the publication of the National Food Strategy in the UK is hugely welcome as it explicitly makes Sustainable Diets a key recommendation. This is to be followed by a White Paper in 2022 in which the Government sets out its response. Sustainable Diets should be core in this response, as this could send signals through the whole food system, from food production through to distribution, retailing, consumption and waste, steering it in a transformative direction for people, planet and food producers and food workers.

This Food Research Collaboration (FRC) report, which has surveyed the opinions of academics and civil society organisations on policy priorities for Sustainable Diets, is therefore timely in highlighting some of the key areas that should be addressed imminently.

Ensuring access to healthy, affordable food is top of the list for academics, with education and food labelling being most frequently mentioned by civil society. Standards for imported and exported food were important to both groups surveyed with food taxes being the least popular. Of the themes that emerged – and there was considerable unanimity – a focus on alternative production methods and short supply chains was key. Reducing meat consumption, increasing fruit and vegetables, less waste and reducing foods high in fat, sugar and salt were also part of the recommended mix for policy outcomes.

With this level of agreement, can policy-makers continue to drag their feet or cite lack of consensus as a reason for inaction?

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Summary of survey findings

Policy approaches

Access and affordability – 37% of academics and 23% of respondents from civil society / the public discussed this theme, proposing a range of approaches. These included better household incomes through work and welfare; 'good local food' voucher schemes; enshrining the right to food in law; and free school meals.

Education and labelling – 20% of academics and 25% of respondents from civil society / the public recommended this approach. Recommendations included stating on packaging where and how food is produced; and improving education in schools to incorporate nutrition, seasonality, climate and the true cost of food.

Trade rules and standards – 31% of academics and 15% of respondents from civil society / the public recommended this approach. They discussed creating and maintaining high production standards in the UK and protecting these standards by avoiding lower import standards. Some also expressed concerns about this from the perspective of off-shoring the impacts of our diets abroad.

Government investment – 24% of academics and 16% of respondents from civil society / the public discussed this theme, proposing a range of approaches. These included better rural infrastructure; leveraging public procurement; and investing in small businesses and local suppliers.

Governance structures – 24% of academics and 10% of respondents from civil society / the public discussed this theme, proposing a range of approaches. These included establishing a new agency with a remit for sustainability and nutrition; introducing mandatory reporting on environmental, social and governance activity; and using ELMS to support agroecology, new entrants and smaller farms.

Food taxes – 8% of academics and 7% of respondents from civil society / the public recommended this approach for foods that are environmentally harmful and/or for those that are unhealthy.

Policy outcomes

Alternative production methods – 31% of academics and 50% of respondents from civil society / the public recommended this approach, either promoting types of farming, such as organic, agroecological, and nature-friendly farming; or referring to desired outcomes, such as carbon sequestration, soil regeneration, and biodiversity.

Local food and short supply chains – 24% of academics and 45% of respondents from civil society / the public recommended this approach. Some respondents discussed reducing the physical distance between producer and eater, while others referred to the length of the supply chain (i.e. number of intermediaries). There are a range of perceived benefits, including lower environmental impacts, increased resilience and food security, or reducing the dominance of supermarkets.

Reduced meat consumption and/or increased consumption of alternative proteins – 31% of academics and 25% of respondents from civil society / the public recommended this approach. A 'less but better' approach was generally popular, with some respondents calling for a totally vegan diet, and one speaking out against meat being framed as an issue at all.

Reduced consumption of ultra-processed and HFSS foods – 12% of academics and 20% of respondents from civil society / the public recommended this approach as a way to improve health as part of a Sustainable Diet.

Less waste – 14% of academics and 12% of respondents from civil society / the public recommended this approach, covering both food waste and the use of packaging. Recommendations included limiting 'over-selling tactics', redistributing excess food from businesses, or incentivising reduced or zero packaging.

More fruit and vegetable production and consumption – 12% of academics and 13%

of respondents from civil society / the public recommended this approach, as an intervention for better nutrition, and as an area of production that needs to be increased and better supported in the UK.

Increased support for small farms – 12% of academics and 13% of respondents from civil society / the public recommended this approach. Small farms were seen as contributing to shorter, more traceable supply chains. They are also considered by some respondents to be more sustainable, less intensive, and more biodiverse.



What are Sustainable Diets and why the renewed interest?

Two US-based nutrition educators, Joan Gussow and Kate Clancy, are credited with coining the term 'Sustainable Diets' in the mid-1980s, while studying the environmental effects of adopting US dietary guidelines.^{1,2} Their work proposed that nutrition professionals should be taught to advise clients to make dietary choices that 'took account of the planet's health as well as their own', encompassing nutrient value, where food was grown, how it was packaged and transported and by whom, and the cost in terms of energy and human wellbeing. They used the startling example that 1 kilocalorie in a diet soft drink came in an aluminium can that took 1600 kilocalories to produce. Published in 1986, their paper came a year before the World Conference on Environment and Development (WCED) published its seminal report calling for a new way of thinking about humanity's relationship with the natural world, to be pursued through 'sustainable development'.³ Gussow and Clancy were pioneers of sustainable food systems thinking.

Since then policy interest in Sustainable Diets, and more broadly in the sustainability *of* human diets, has waxed and waned – dismayingly, given that the crises these ideas try to tackle have worsened over the same period. The industrial food system, from farm to waste disposal, has been shown to be a major contributor to climate-changing emissions and a key driver of biodiversity loss; at the same time, the abundance of calories and preponderance of less healthy foods it provides cause illness and reinforce health inequalities.⁴ Less noticed is the fact that food workers the world over are among the worst-paid and most exploited.⁵

But even as these impacts and problems become clearer, other concerns – such as the need to provide food of *any* kind in situations where food is scarce; the need for cheap food where people predominantly live on low incomes; the pressure for food systems (and regulations) to serve corporate rather than public interests; or the requirement that food systems fit with prevailing political and economic objectives – have often displaced sustainability as a priority for governments making food policy.

In the UK, this may be about to change. Indeed, it may already *have* changed, with the publication in July 2021 of the main part of the National Food Strategy (NFS), commissioned by the Government and compiled by a team of independent advisers.⁶ A 'root and branch' review of how the UK feeds itself, accompanied by recommendations for setting a different course, the NFS accepts the fundamental conflict between the diets that have been delivered by industrial food systems over the past 50 years, and the diets that are needed if all people are to be well fed (for health and happiness) without exceeding the planet's critical resource thresholds.⁷ The NFS explicitly acknowledges that 'healthy and sustainable diets' are an overarching goal of its recommendations. In other words, Sustainable Diets are back on the policy menu.

Sustainable Diets condense into a single idea the multiple challenges facing the food system. Crucially, they represent a *systemic* approach,⁸ taking in all elements of the complicated chains and webs that connect food producers through intermediaries to eaters, and the twin needs happening in the midst of an increasingly tangible climate and ecological crisis.

It is inevitable that Sustainable Diets will be a central objective of the food policy to be developed in the UK in the near future. The purpose of this report and the survey it summarises is to help provide policy-makers with input from academic and civil society experts – people who have worked on and thought about food system problems for decades.

The survey responses – presented graphically and discursively in later chapters – show strong consensus around some key themes. Sustainable Diets should be based on agriculture that regenerates the environment; they should make nutritious foods available to everyone at affordable prices and discourage and disincentivise

'Land managers need viable, resilient livelihoods enhanced by equitable trade, not undermined by trade' (CS)

to support public health and also restore the environment (defined by the authors of the 1987 WCED report not as a 'sphere separate from human actions, ambitions and needs' but as 'where we all live'⁹). Sustainable Diet policy – meaning policy that has the goal of achieving sustainable diets for all – must therefore be cross-cutting, involving many levels and departments of government.¹⁰

Food policy is in a crucible. Brexit and Covid have already changed the way people shop and eat, and the way food businesses operate. The NFS is to be followed by a White Paper in early 2022, setting out the Government's response. This in turn is likely to be followed by laws and non-legislative measures to move the system in the desired directions (the NFS recommends a Good Food Bill that would mandate Action Plans every five years). England has a new Agriculture Act, the implementation of which is still being worked out; there are also a new Environment Act, new Trade Agreements, a Trade and Agriculture Commission. And all of this is consumption of highly processed foods; they should deliver foods as far as possible via short supply chains, involving diverse producers but fewer intermediaries, working in local food economies served by local infrastructure; they need to be facilitated by honest labelling and the provision of information and education to food eaters; they should protect UK standards (and producers) from being undermined by imports; and they should be enforced, in part, through legal requirements for food companies to report the climate and other impacts of their products and processes.

Within this consensus, the responses also illustrate points on which informed views differ: not casual clashes of opinion, but differing positions buttressed by experience and evidence. Meat is an example: there is very strong agreement that meat consumption should be reduced, and that the meat that we eat should be 'less but better'. But some respondents had more polarised views, either prioritising an almost total rejection of animal

products in favour of plant-based food systems, or arguing for the retention of some livestock for its contribution to the maintenance of soils, biodiversity and human nutrition. There is a danger that the pursuit of perfection (or ideological purity) could defeat consensus-based progress here. One respondent seemed to issue a warning to all of us: their first priority was: 'The definition of Sustainable Diets and sustainable food systems [should be] clear and not contested by food system actors in reaction to any White Paper'.

Creating policy for Sustainable Diets, whatever else it entails, will require balance, trade-offs, negotiation and cooperation. It will call for coordination across government and between government, civil society, academia and industry. But it also needs to be quick: one respondent listed as a priority 'Not taking years to agree what a Sustainable Diet looks like'. The Government's early response to the Covid pandemic showed that it could act quickly to make big changes in response to a crisis.¹¹ It also showed that the results can be messy, meaning policies have to be revisited and rectified, but that may be an inevitable part of policy-making in an emergency. At this critical juncture, it is urgently necessary to take account of the knowledge and experience of the experts represented here, and the decades of pioneering work on Sustainable Diets they represent, to help shape a food system that will restore and sustain our health and our environment.



An overview of academic discussions

As noted in the previous section, Sustainable Diets have been recognised and discussed since the 1980s, but it was a conference held in 2010 by the UN Food and Agriculture Organisation (FAO) and the research centre Bioversity International that established the now commonly cited definition of 'Sustainable Diets'.¹² Encompassing a broad number of criteria, it states:

> 'Sustainable Diets are those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable Diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources.¹³

The key components of a Sustainable Diet were recognised at this conference as:

- well-being and health
- biodiversity, environment, and climate

- equity and fair trade
- eco-friendly, local, and seasonal foods
- cultural heritage and skills
- food and nutrient needs, food security, and accessibility.¹⁴

Garnett points out that these complex, interdependent values cannot be assumed to be synergistic, and in some cases will inevitably lead to trade-offs.¹⁵

Given the complexity of this definition, many studies have taken a more simplified approach, focusing disproportionately on greenhouse gas emissions as a measure of the sustainability of diets, with other components being underrepresented.¹⁶ Land, water and energy usage are also frequently (though less commonly) assessed, whilst accessibility, equity and skills are largely absent from the literature.¹⁷ In 2011, for example, WWF published its first 'Livewell' report, which focused solely on whether it was possible, by adjusting UK diets in line with the Government's dietary guidelines, to achieve greenhouse gas emission targets for 2020.¹⁸ A more recent report by WWF on Sustainable Diets was expanded to incorporate water use and land footprint, with similar work carried out by the Carbon Trust for Public Health England.^{19,20}

The UK Sustainable Development Commission (the independent body set up in 2001 to advise the Government on sustainability) took a more wide-ranging approach, reviewing the potential synergies and trade-offs of developing Sustainable Diets across environmental sustainability, social inequalities, public health and economic stability.²¹ Its grid of 'multiple values for a sustainable food system' has been described as a pragmatic mechanism with which the complexity of Sustainable Diets can be grappled within policy.²² The Commission was disbanded in 2011, but its six categories – health, quality, social values, environment, economy and governance – have since been developed by others in detail.²³

A range of foods and eating habits commonly appear in the literature on Sustainable Diets:

- diversity of foods eaten
- balancing energy intake with needs
- meat in moderate quantities, if at all
- diets based around fruits, vegetables, wholegrains and minimally processed tubers
- dairy products and dairy alternatives eaten in moderation
- small quantities of fish
- unsalted nuts and seeds
- low intake of HFSS foods
- oils and fats with beneficial Omega 3:6 ratio
- tap water.²⁴

Despite this breadth, in the most recent literature, reduced consumption of meat and animalderived products tends to be cited as a central approach to achieving more Sustainable Diets, not only in terms of greenhouse gas emissions but across a range of environmental factors.^{25,26,27} However, there are concerns that promoting reduced meat intake generally could result in diets of lower micronutrient quality, and thereby not address the 'nutritionally adequate' requirement of a Sustainable Diet.^{28,29} Some recent studies do engage with other dimensions beyond the environmental impact of Sustainable Diets, by integrating affordability into their assessment of meat consumption, health and greenhouse gas emissions.³⁰

There is broad consensus that a shift in consumption habits is fundamental to staying within our planetary boundaries,^{31,32} but the UK's current dietary guidelines still fail to meet a number of environmental targets, including on climate change and land use.³³ There is also a growing literature on human behaviour in relation to diet change, consumer perception of sustainable dietary recommendations, consumer willingness to change, and effective methods for encouraging widespread dietary change. Despite growing pressure to incorporate sustainability into national dietary guidelines, results suggest that, for these to be effective, there needs to be an accompanying shift in social norms and perceptions.^{34,35,36}

The 2010 FAO and Bioversity International definition of Sustainable Diets covers an array of - sometimes conflicting - ambitions, and continues to be the touchstone in this field of study. Research in the field has consistently taken a more simplified, perhaps pragmatic, focus, emphasising the balance of nutritional need with environmental factors, often in terms of greenhouse gas emissions. Accessibility, equity and skills are, meanwhile, largely absent from the literature. The UK Sustainable Development Commission proposed a framework for policy-makers to tackle the complexity of Sustainable Diets, but was disbanded a decade ago. Looking beyond targets and definitions, there is considerable consensus on the content of a Sustainable Diet, with increasing focus on the role of meat and animal-derived foods. Concerns remain, though, that this focus on meat and greenhouse gas emissions may fall short of achieving the full range of outcomes defined by 'Sustainable Diets'. There is broad agreement that the UK's dietary guidelines need to incorporate sustainability, but an increasing body of work suggests this must be accompanied with shifting social norms and perceptions to effect real change in society.

What we did

Prompted by the recognition that Sustainable Diets were likely to be an important feature in forthcoming policies, the FRC conducted a survey between 25 May and 11 June 2021. The survey consisted of an online form with a text box that respondents could complete, with a word limit of 200 words. Respondents had the option to declare their identities and affiliations, or to respond anonymously.

The survey was sent to all subscribers to the FRC mailing list, which includes both academic and civil society members. The link was also Tweeted, and shared by members of the FRC and other networks.

Respondents were asked to list the three priorities Government policy on Sustainable Diets should focus on. The question read:

> 'In the context of Covid-19, Brexit and the climate crisis, and sitting alongside the Agriculture and Fisheries Acts and the forthcoming Environment Act, WHAT THREE PRIORITIES should the government's Sustainable Diets policy focus on?'

We received 149 responses. The breakdown is as follows:

- 49 responses from 51 academics (two responses were submitted by two academics together) – approximately 33% of total responses
- 24 responses from members of civil society organisations – approximately 16% of total responses
- 76 responses from individual members of the public 51% of total responses

The next sections summarise the findings. You can find a compilation of all the responses, in anonymised form, on our website.

Throughout the report, responses from civil society organisations and the public are marked by the letters (CS), and academic responses by the letter (A).



The survey responses in graphics

For the purposes of our analysis, and reflecting the FRC's mission to bring together these two types of knowledge, we divided the responses into two parts: responses from academics, and those from civil society and members of the public. The data were coded, identifying the key concepts being put forward by each respondent. These concepts were then grouped thematically. A clear distinction became evident between policy approaches that were being proposed, and policy outcomes being identified as conducive to Sustainable Diets. Within each of these two topics, several common themes emerged. These themes, and their relative popularity amongst the respondents, have been outlined below.

Policy Approaches

Six key policy approaches emerged from the survey responses:

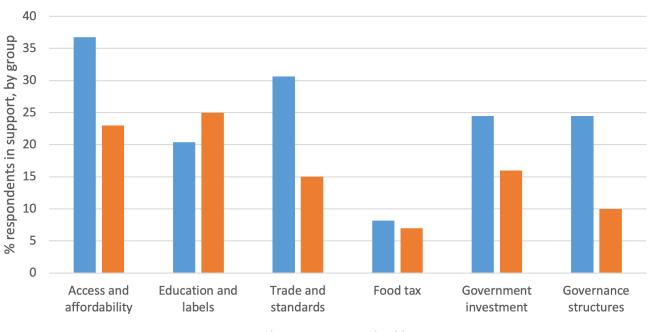
- 1. Access and affordability: guaranteeing all consumers/eaters have the means to purchase healthy and sustainable food
- 2. Education and labelling: providing consumers/eaters with the necessary information to promote healthier and more sustainable choices
- Trade and standards: specifying what is available to consumers/eaters through enforcing standards for UK production and/ or imports
- Food taxes: disincentivising consumers/ eaters from purchasing unsustainable and/or unhealthy food by applying taxes
- 5. Government investment: using public money to incentivise production methods or consumption habits through subsidies or public procurement
- 6. Governance structures: establishing regulatory bodies or monitoring and reporting mechanisms

Academics spoke most frequently about ensuring access and affordability: that individuals and households had the means to afford a healthy and/

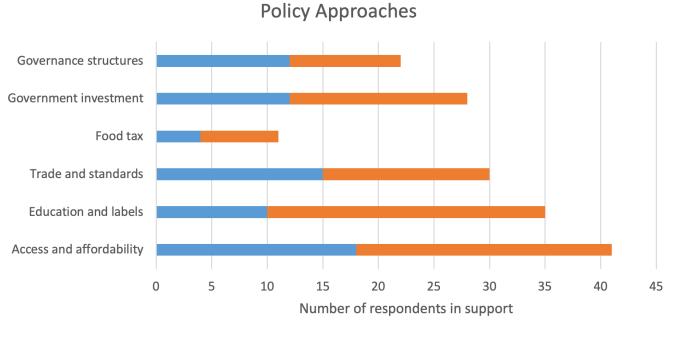
or sustainable diet. 37% of academic respondents recommended this measure. This was closely followed by an emphasis on ensuring standards, particularly in the context of trade and imports, with 31% of academic respondents recommending this measure. Taxing unhealthy or unsustainable foods was the least popular of the main policy approaches discussed by the academics. Only 8% of academic respondents suggested this policy approach. This suggests a combined approach of limiting unsustainable food available to the consumer, whilst ensuring households have the means to access and pay for a sustainable alternatives.

Education was the most common policy approach proposed by civil society representatives and members of the public, closely followed by access and affordability, with 25% and 23% recommending these measures, respectively.

Overall, ensuring access and affordability (for example through increasing the value of Healthy Start vouchers, introducing a Universal Basic Income, or enshrining the right to food in law) was the most common policy measure discussed, with 28% recommending this overall, followed by better education, with 23% in support.



Policy Approaches



Academics CSO and Public

Policy outcomes

Seven key descriptors emerged for what the desired outcomes should be for policy to promote Sustainable Diets:

- 1. Alternative production methods, including organic, agroecological, nature-friendly and regenerative
- 2. Local food and short supply chains
- 3. Reduced meat consumption and/or increased consumption of alternative proteins
- 4. More fruit and vegetable production and consumption
- 5. Less waste
- 6. Reduced consumption of ultra-processed and HFSS foods
- 7. Increased support for small farms

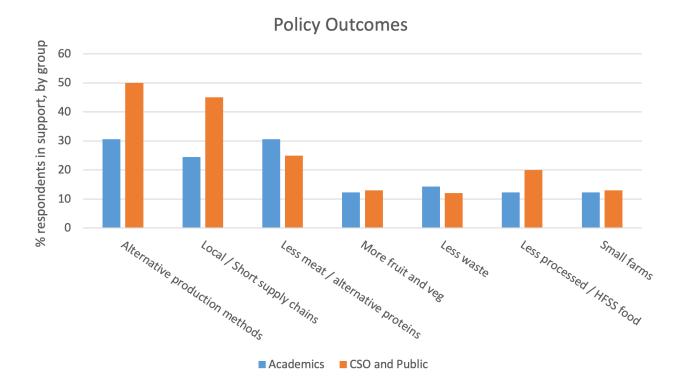
The academics focused in equal measure on alternative production methods, and reduced meat consumption and alternative proteins, with 31% recommending these measures. Support for local or short supply chains was also common, with 24% of academics recommending this. Civil society representatives and the public focused mostly on alternative production and local or short supply chains, with 50% and 45% recommending these measures, respectively. This group placed slightly less emphasis on reduced meat consumption, with 25% in support. Some respondents in this group specifically spoke out against framing meat as a problem.

Overall, 17% of all respondents recommended reducing ultra-processed and HFSS foods. Increased fruit and vegetable production and consumption, smaller farms, and reduced food waste were each supported by 13% of all respondents. Alternative production methods were recommended by 44% of all respondents, and local or short supply chains by 38%.

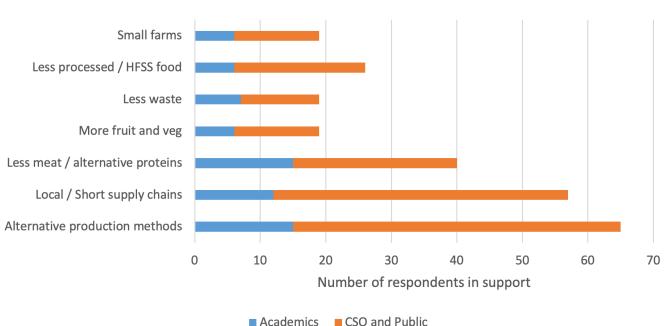
Promoting and enabling alternative production methods was seen as the key factor in improving the sustainability of diets, followed by local and shorter supply chains.

In summary, the survey paints a picture of a combined policy response to enable Sustainable Diets. Respondents feel that individuals need to be empowered with the financial means, access and knowledge to be able to purchase sustainable

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'Ensure that food for a Sustainable Diet is a central and local governance cross-cutting theme in land use planning, economic and business development, health and social welfare policy in all countries of the UK' (A)



Policy Outcomes

food, with high standards to limit the availability of unsustainable alternatives. This needs to be accompanied by a move to more sustainable farming practices, local or short supply chains, and reduced meat production and consumption.



The survey responses in words

Thematic analysis provides a broad-brush picture, and the themes that emerged were clear (and consistent with the literature). The individual responses provide detail and nuance. There were many different ways of describing the same goal or idea; and some dissenting views. To give a flavour of the diversity, some responses were succinct, such as the respondent who said:

'Heavily tax ultra processed foods'. (CS)

Or another who listed as three priorities:

- 'Locally produced,
- Short supply chains
- Real food (unprocessed)'. (CS)

Many responses highlighted that multiple benefits could be derived from the policy priorities they listed, illustrating the interdependency of the issues involved – for example, increased UK production of fruit and vegetables was seen to have benefits beyond nutrition:

> 'Grow more fruit and vegetables in the UK for home consumption using agroecological practices. Multiple cobenefits: increased carbon storage as agroecological practices rely upon soil organic matter for fertility; increased biodiversity as agroecological practices rely

upon biodiversity for ecosystem services such as pest control, pollination, soil formation, etc.' (CS)

Some approaches were very abstract and high-level:

- 1. Develop a comprehensive Food Systems Strategy focus on health, environment and equity benefits;
- 2. Develop interventions to maximize improvement of local food environments;
- 3. Lead internationally a drive for better food for health. (A)

Others were very concrete and specific:

'Bottled water has no place in schools and should be banned'.(CS)

'Heavily tax any removal of animal faeces etc as soon as they are transported off the farm'.(CS)

Tables 1 and 2 provide examples of responses on all the approaches and outcomes identified in the analysis. However, fragmenting the responses in this way fails to do justice to their detail and variety, so Box 1 presents some whole answers as they were given by respondents. The full (anonymised) dataset can be found on the FRC website here.

'Fair reward for the producer of the food, with a greater percentage of the cost to the customer going to the producer than to the retailer – so less power to the supermarkets' (CS)

Table 1: Selected responses on the main policy approaches prioritised by respondents

Policy approach	Example of response (CS)	Example of response (A)	Example of response (CS)	Example of response (A)
Education and labelling	Better education for all ages so consumers have the knowledge to improve their choices about food, from seasonality through to nutrition, how it is produced and at what, true, cost.	Education (top priority): Reconnecting people to (sustainable/regenerative) farming and raw food provenance, to move away from ultra-processed food and promote understanding of food production including seasonality, climate impact etc., plus broader food education such as cooking skills.	Clear labelling of food products to state how and where it's produced – caged chicken and pork, for example, should be labelled as such, and not be allowed to suggest they were produced otherwise.	Provide integrated food information encompassing health, sustainability, safety (which explains synergies and trade-offs between these), ie. 'eat fish for health vs protect fish stocks''eat fruit and veg vs avoiding air miles''food safety vs food waste', to make sustainable dietary choices less confusing.
Access and affordability	Good local food as part of Universal Basic Services. These could include subsidies for organic food for ALL; folks who can easily identify as having need for further subsidies can apply to receive vouchers that are only spendable at farmers' markets, Open Food Network or community allotments / gardens / honesty boxes. This would require a compulsory mapping of local resources and easy transport access where possible.	Zero hunger – no-one should go hungry or choose between housing or feeding themselves on a diet suitable for health and culture. This requires a work and welfare system where work pays enough to live on, and the risks associated with unemployment and ill health are shared. Welfare should provide the entire household with enough resources to meet their housing, energy, food, clothing and transport needs minimum housing standards must include a fully equipped kitchen.	Enshrine the Right To Food in law and provide funding and infrastructure to ensure that food banks become a thing of the past and that no child goes to school hungry.	Consider equity and inclusivity in food provision – tackle issues of food poverty and food deserts, including through school meals alongside the promotion of more ecologically harmonious practices, and revalue and include small farmers in initiatives.
Trade and standards	Set high tariffs for imported food produced to lower welfare standards than those UK farmers must work to. Ditto for imported food produced using chemicals or pesticides not allowed by the UK.	Maintain current high standards of UK food sector by not agreeing inappropriate international food and drink trade deals.	A key priority should be to avoid export of unsustainable diet-related practices to other countries (e.g. water, land use, chemicals, antimicrobials).	All agriculture and trade policies need public and planetary health at their core.

Food taxes	Fiscal policies for HFSS products. After the success of the Soft Drinks Industry Levy, the Government should roll out similar fiscal measures for other food products that are high in salt, fat and sugar as these products are highly environmentally and nutritionally unsustainable. The current voluntary measures are not working.	Utilise fiscal measures – taxes on unhealthy foods and subsidies for healthy foods – to incentivise citizens to eat sustainably (and incentivise private sector reformulation / promotion / innovation).	Taxing the production, sale and consumption of foods that are harmful to the environment (meat and dairy) or to human health (sugar). Using funds raised to subsidise proper cooked meals in schools, hospitals and other public places.	Fiscal incentives could be used to change producers' behaviour (carbon tax).
Government investment	Investment in high street food suppliers and changes in high street operation times: fund local suppliers like butchers, greengrocers, fishmongers, bakers, etc, to train up others to step into the trade; bursaries to support new generation of food suppliers; help them establish hours that are competitive to supermarkets help them have a fighting chance by restricting how much fresh produce supermarkets are allowed to stock.	Invest in rural infrastructures: upland livestock production has a low environmental impact and preserves rural landscapes that are highly valued by many. Limitations in rural infrastructures – including poor roads and a lack of local abattoirs – cause serious problems for producers in these areas.	Normalise sustainable diets in public procurement. Set a maximum amount of meat to be served per person across the week for health and climate benefits, but make it flexible to suit caterers. Increase the amount coming from 'better' sources (ie British free- range, organic, LEAF marque and RSPCA assured) over time, so the whole policy supports better UK farmers. Introduce a minimum fruit and veg requirement, less ultra-processed food and more organic and locally sourced.	Redesign food public procurement policy – drawing on international best practice eg Denmark, Brazil – to introduce (and monitor / enforce) ambitious mandatory nutrition, environmental and social standards, upskill catering staff on nutrition and sustainability, enable equitable participation by businesses and provide markets for local producers.
Governance structures / regulation	Place agroecology at the heart of farming policy and ensure the new ELMS scheme focusses on whole-farm approaches, and offers support to new entrants and small-scale production	A policy implementation body along lines of the Food Standards Agency – remit for sustainability and nutrition;-stakeholders to include NGOs, academia, agriculture and food industry; to deliver national change, if necessary with legislation; to set urgent priorities, such as supermarket packaging, sector by sector.	Introducing strong regulation on packaging and food and drink claims, on what is allowed or not (eg ban cartoon animations used on pack to market unhealthy products to children)	Mandatory reporting of engagement with the food system and sustainable diets be required as part of the annual reporting of Environmental Social and Governance (ESG) activity in public corporations, and this is mirrored by the extension of the Public Services (Social Value) Act 2012, so all large organisations nationally have reporting duties under the sustainable food and food systems agenda.

Table 2. Selected responses on the main policy outcomes prioritised by respondents

Policy outcome	Example of response (CS)	Example of response (A)	Example of response (CS)	Example of response (A)
Alternative production methods	Diets that are derived from sustainable farming practices, including the promotion of biodiversity, soil regeneration and carbon sequestration.	Production systems [that] are sustainable or regenerative such as agroecological, organic, Permaculture. The systems build and protect ecosystems – biodiversity, soil health for example	Nature-friendly farming – integrating ecology and wildlife as part of farming, not separated	The best and most efficient use of UK agricultural land and natural resources in terms of encouraging livestock and cropping systems that improve national food security while reducing environmental impacts and ensuring a safe, affordable food supply to the consumer.
Local food and short supply chains	Seasonal, local food from cities' 'vegbelts' within 20 km infrastructure for more localised food systems such as food hubs, Community Supported Agriculture, etc.	Local food – building resilience to climate change and other food system shocks by supporting and connecting the public with local food growing and processing initiatives.	Reducing the dominance of large supermarkets / wholesalers and shortening supply chains to create fairly paid opportunities for smaller producers.	Local food which maximises local diets, sustainable methods of production and sustainable retailing [to] ensure and maximise food security.
Reduced meat consumption and/or increased consumption of alternative proteins	Promoting plant-based eating eg subsidising fruits and vegetables, introducing meat-free days in schools and other institutions and helping fund local community growing projects.	Reducing overall meat consumption, shift from high-emission meats (beef and lamb) to low-emission alternatives (including chicken, pork and meat alternatives).	Promoting higher-welfare meat but consuming less of it.	Promote cultural and societal acceptance of meat substitutes such as 'beyond meat' as alternatives to meat consumption in an attempt to drive down consumption without radical behavioural changes.
More fruit and vegetable production and consumption	Affordable fresh fruit and vegetables freely available in low income communities and areas experiencing multiple indices of deprivation.	Increase support to the UK horticultural industry: the UK imports fruit and vegetables that could be grown domestically and there is unmet consumer demand for locally produced fruit and vegetables. Wages and work conditions in the horticultural industry are not good. Improved and targeted government support could increase production and create good-quality jobs.	Increase production of locally produced plant based foods, requiring a huge increase in horticulture in the UK and investment in glasshouses and other methods which use less land and where the biosecurity, pollution and water management can be closely controlled.	Increased UK production of fruit and vegetables in a sustainable manner

Reduced consumption of ultra- processed and HFSS foods	Reducing the appetite for ultra- processed foods by improving access and availability of healthier ingredients, normalising cooking from scratch and supporting community social eating that demonstrates those principles.	Diets that are healthy, providing sufficient essential nutrients and avoiding unhealthy foods such as ultra- processed.	Education in ultra-processed foods, with clear labelling to highlight the dangers of such foods. Controls over the marketing and advertising of ultra- processed foods by the food industry, which is far more powerful than any education by schools could be.	Penalise highly processed and high fat, sugar, salt foods manufacture in favour of healthier foods.
Increased support for small farms	Small, owner-farmer farms should be subsidised more, and corporate mega farms should be subsidised less.	A future for small farmers.	Policy levers which actively discourage land consolidation. Small farms (which generally have shorter supply chains, are less intensive and support more biodiversity) need urgent support.	Support local networks of smaller-scale family farms and fishers that farm and fish extensively and sustainably to ensure sufficient traceable, foods, eg milk, eggs cheese, meats, cereals, fruit and veg, is grown/reared/fished in sustainable shorter supply chains across the UK, making this affordable to all.
Less waste	Minimising waste in the food system: a range of solutions to explore, including helping businesses to redistribute excess food, supporting producers in negotiating no-waste deals with supermarkets (legislating against deals which drive waste), decentralising and shortening food supply chains.	Reducing systemic over-consumption of food [and] food waste (eg from over- selling tactics and standards of produce uniformity).	Greater efforts to reduce food waste in catering and domestically.	UK homes waste 7 million tonnes of food each year. Package size is important, many foods are [supplied] in bulk. Government needs to work with retailers to stop 'buy one get one free' deals and to incentivise no packaging or small sizes.

'Achieving Sustainable Diets for the UK's population should not come at the cost of environmental damage or socio-economic injustice (including the breaching of human rights within food systems) around the world' (CS)

Box 1. Examples of whole answers

'**Government should prioritise healthy local food economies** through incentives (funding, training), regulation (public procurement, planning) and disincentives (advertising restrictions, sales limits) to provide a steady supply of affordable, healthy and sustainably produced food; support inclusive, sustainable local economies; and contribute to a healthy environment and zero carbon goals. Make locally produced whole foods more affordable than unhealthy ultra-processed foods.' (A)

'I have only one priority: it is a procedural policy, namely that **every single internal DEFRA committee have a mandatory standing item of 'Sustainable Diets and climate change' as the penultimate item on every meeting agenda**. That item requires the meeting to review the decisions and discussions of its deliberations for all substantive items covered from the start of the meeting asking whether it is known if a decision has positive/negative consequences for sustainability. If not known, then steps are to be taken to find out and record whether it is positive, negative or neutral and whether alternative decisions have, as a result been considered and, ideally, acted upon in some constructive and positive fashion. Certainly it is cumbersome, but changing daily 'mind sets' is essential and rarely mentioned.' (A)

'1. **Moderation and not exclusion**. Encourage a shift in mindset that encourages a sliding scale rather than cliff-face yes or no decision to what people can or should eat. Cooking and food knowledge is a skill which takes years to develop and be able to apply.

2. **Education is helpful, inspiring and encouraging is better**: assuming that people know how, want to or have the means to in changing their diet is presumptuous and dangerous in framing the debate in the correct light. Meaningful change will work best [by] encouraging multiple small steps in a person's diet where they feel able or want to make that change; this should also be supported by market and government actions to make the 'better option' more front and centre to citizens but also accessible.

3. Food **locality is good**, but promoting it for the social-economic reasons of supporting local small and medium food enterprises that help contribute to that area's food security is vital for creating resilience and understanding. This **must be weighed up with the realities of where food is best grown in an environmental, cost-effective, energy-effective way**'. (CS)

'The first policy priority is to **ensure that the UK's trade agreements and objectives don't sabotage the goals of ensuring Sustainable Diets for all**. Trade agreements need to be aligned with the following goals: a) meeting our climate commitments; b) avoiding deforestation or other forms of biodiversity/climate-damaging land use change; c) improving the nutritional health of the UK population; d) maintaining and improving high animal welfare and labour standards in the supply chain.

Second, Sustainable Diets must be affordable to all and access to such diets must be

available from the moment of birth – this means that Government needs to substantially improve its public procurement specifications to ensure that meals in nurseries, in schools, in further education and in other public settings must be aligned with the climate, nutritional and ethical objectives outlined above.

Third, Government should establish a **consistent and standardised reporting mechanism for supermarkets, food service providers and other gatekeepers of our diets to use**, in which they track and report progress on ensuring [their] customers' typical 'basket of goods' [is] compatible with the climate, nutritional, welfare and biodiversity objectives listed above. (A)

'It's easy to think of diet as an individual choice and action, which to an extent is true of course, but the **essential message is not to devolve responsibility to individual consumers**.

We have a role ... but a complex challenge such as Sustainable Diets needs government intervention and regulation, as well as food industry support. So **government intervention to create a sustainable food environment is essential**, including appropriate laws and regulations to nurture and nudge.

This relates to a broader argument that Sustainable Diets need to avoid presenting a tacit acceptance of consumption-orientated solutions to sustainability. So **avoid a depoliticisation of the issue**, which in reality requires structural interventions alongside individual consumer actions.

Another priority might then be **citizen engagement and more collaborative actions**. Linked to this, too, it will be critical to convey Sustainable Diets as not simply a 'Majority World' problem – so frame it as part of a wider discussion about diverse ways and patterns of how people access food, recognising social and cultural diversity. In other words, Sustainable Diets mean different things to different social groups and actions and policy interventions need to recognise this and work accordingly'. (A)

'1. **We cannot 'off shore' bad agricultural practices, Sustainable Diets start with sustainable farming practices**. Public spending on food (hospitals, prisons, schools) should be local and sustainably sourced. All to come from organic or regenerative agricultural / agroecological farming practices. All food sold in supermarkets should be from approved sustainable / agroecological / regenerative farming practices – or at least have clear labelling to help consumers choose.

2. **Education, linking consumers with growers and farmers**. Education on poor diets (for planetary and human health) must not come from food industry but from farmers, government, civil society and in schools

3. **Affordability for all** ... The cost of food needs to be addressed. Subsidies, true cost accounting and the polluter pays principle CAN enable food to continue being affordable, but farmers and growers [are] paid fairly while [working] in regenerative ways'. (A)

Conclusions

The survey responses showed a relatively broad approach to Sustainable Diets, not limited to environmental impacts of diet, but also considering health, food security and inequalities. Reflecting a common approach in the academic literature currently, there was considerable focus on reducing meat intake, yet overall this was talked about less than changing agricultural practices and shortening or localising supply chains. Interestingly, food waste was talked about considerably less than these measures, despite the largely uncontroversial view that it contributes significantly to the unsustainability of the food system. Reduced intake of processed food and increased fruit and vegetable consumption were recommended by considerably fewer respondents than reducing meat intake, despite clear benefits to individual health and nutrition and potential co-benefits for other aspects of sustainability.

A wide range of policy instruments was recommended to improve food access and affordability – this being the most common policy approach discussed, with education and labelling in second place. There was little mention of behavioural interventions or efforts to shift social norms, as is currently discussed in the literature, but more focus on empowering and enabling eaters to make sustainable choices, while limiting less sustainable options. Maintaining and protecting food standards, particularly in the context of trade deals, received a lot of attention, particularly from academics. Food taxes, on the other hand, were not a popular measure.

None of the policy approaches or outcomes listed as priorities by survey respondents was radically new (although there were many imaginative suggestions). Taken together - and coming from a set of respondents with so much relevant expertise - they show an authoritative consensus on what Sustainable Diets consist of, and what types of policy are needed to achieve them. There are differences to be negotiated and trade-offs to be managed, and powerful interests will try to control the process – a risk several respondents warned against. But this is an opportune moment. With vigilance from civil society and academia, and determination on the part of policy-makers, progress can be made to build on the National Food Strategy and achieve a White Paper, Good Food Bill and Trade Agreements that turn this knowledge into action.

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