

Institute for Public Policy Research



# **BUILDING A FOOD SYSTEM THAT WORKS FOR EVERYONE**

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# SUMMARY

The global food system is intricately linked to many of the greatest problems facing the world today, from the rise of non-communicable diseases, childhood hunger and food insecurity to environmental degradation, species loss and climate change. Over recent decades, the food system has become increasingly wasteful, processed and environmentally damaging. Along with the possibility of rising temperatures, water shortages, pest species outbreaks and other social and economic challenges, coordinated action is required at multiple levels of society to ensure that our food system can keep pace with increased demand over coming decades.

The Covid-19 pandemic has brought the vulnerabilities of the UK food system into sharp relief. Images in 2020 of panic buying, empty grocery shelves and queues at food banks, while relatively short-lived, offered a glimpse into the potential impact of longer-term and more sustained shock and disruption to food supplies. This is against a backdrop of rising levels of food insecurity, childhood hunger, precarious employment in the agri-food sector and continued environmental degradation and contribution to climate change as a result of unsustainable food production practices.

Yet the moment in which we find ourselves in, from building new trading relationships post-Brexit to the needs of meeting net zero, presents an unparalleled opportunity to re-orientate our food system towards a fairer, healthier, and more sustainable system of food production and consumption. One way or another change is coming but the question is, what change, in whose interest, and at whose expense?

Everyone, irrespective of social or economic group, should be able to access appropriate healthy and affordable food, produced in ways that support the return of biodiversity to farmed landscapes, removes carbon from the atmosphere, and avoids polluting ecosystems, while providing meaningful and sustainable livelihoods for those working in the agri-food sector.

Developing a healthy, fair, and sustainable food system requires a radical change in how we view our food system. It will mean a shift from our current siloed and laissez-faire approach to one that applies a ‘whole food systems’ approach, considering how all dimensions of the food system interact and influence one another. Delivering such an approach will need a whole range of measures to recalibrate how the food system is governed and how power is redistributed, to deliver more sustainable, healthier, and fairer outcomes. It will demand a stronger, more deliberate -yet flexible -role of the state in managing the competing demands of our food system, at both the local and national level.

## KEY RECOMMENDATIONS

This report puts forward a series of recommendations for the UK and devolved governments, as well as local authorities, to start addressing the many challenges currently facing the UK food system. In particular, we hope to inform the government’s National Food Strategy which is currently under

**“Everyone should be able to access appropriate healthy and affordable food”**



development and the first step towards a more coherent and joined-up policy approach to food. Our key recommendations include the following.

### **1. A new legal right to food and a statutory body for enforcement**

**We propose enshrining the right to food in law through a new UK Food Act**, with similar legislation at the devolved level, to set strategic food system objectives and targets, along with means for monitoring progress. The act **must also establish an independent, statutory UK Food Commission** with the express function of monitoring, advising, and holding the governments in the UK to account on their delivery of sustainable and fair food systems policy. The UK Food Commission must apply a whole food systems approach and oversee the implementation of the recommendations outlined in this report.

### **2. Promoting sustainable and healthy diets**

**We propose establishing nationally agreed targets for UK consumption of less and better meat and dairy.** The government should adopt the Eating Better recommended target and framework of a 50 per cent reduction in consumption by 2030, with a corresponding uplift in the proportion of meat and dairy consumed that meets high environmental and welfare standards. **We also propose the introduction of a ‘non-essential’ food levy on a range of products that contain excessive levels of sugar, fat, and salt.**<sup>1</sup> The revenue generated from the fiscal measures should be used to subsidise healthy products for low-income families. This should be delivered through a ‘healthy child voucher scheme’, worth £21 per week, and redeemable for items not covered in the non-essential food tax. This would cost an estimated maximum of £1.5 billion per year, assuming each voucher is used in full – and would disproportionately benefit regions outside the South, where deprivation is higher, in line with government’s ‘levelling-up’ ambitions. **There should also be a total ban of ultra-processed/high fat, salt, and sugar food and beverage advertisements in times and media (TV and online) most accessed by children.**

### **3. Investing in local and regional food systems**

**We propose that the government should provide investment in local and regional food systems infrastructure, including food hubs, local markets, and processing facilities.** This could be funded through the development of a dedicated tranche of the proposed UK Shared Prosperity Fund, shaped around local sustainable food economies as a means for helping to ‘level up’ regions. **We also propose the strategic use of public procurement to help support local economic growth, food system resilience, and the production and availability of sustainably produced food.** This should include adoption by local authorities of the ‘Preston model’ for the strategic use of local public spending to support local economic growth and sustainable food provision.

### **4. Addressing wider social inequalities**

**We propose raising the baseline social security payment (the universal credit standard allowance) to reach 40 per cent value of the minimum income standard by the end of this decade, up from the current 30 per cent.** For a single person over the age of 25 years old, a 40 per cent target would raise the standard allowance from around £410 to £555 per month. In order to reverse the rising number of children living in food poverty, we advise coinciding the increased social security payment with the removal of the ‘two-child limit’, which restricts universal credit payments to the first two children born. **We also propose that the government should invest in a UK-**

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<sup>1</sup> We recommend an 8 per cent levy on non-essential foods with a calorie density greater than 275kcal/100g. This would target cakes, sweets, crisps, ready meals, and takeaways – but not healthy products that happen to be high in one of fat, salt, sugar, or fat.



wide network of community-owned and managed food hubs to act as the primary delivery point of food-based support to individuals and families.

### **5. Rebalancing food supply chains**

**We propose that the UK government should fast-track the introduction of codes of compliance for fair supply chain practice across agri-food sectors.** This is underway in the dairy sector but should be quickly expanded, particularly to those sectors most at-risk from and contributing to the climate and nature crisis. **We also propose extending the remit of the Grocers Code Adjudicator (GCA)** to include businesses further up supply chains, so that it not only covers relationships between supermarkets and their immediate suppliers but also primary producers and purchasers. **We propose the creation of a ‘supply chain resilience fund’ to support food producers prepare for future shocks and supply chain disruption.** The scheme could work by providing grants to small and medium sized companies or community organisations to invest in actions to future-proof supply chains against sudden change.

### **6. Targeting unsustainable food production, consumption and waste**

**We propose that the UK should strive to remove all agri-food products associated with deforestation from UK supply chains.** The UK should become a deforestation-free country before 2030, by which point sustainably produced food should represent a majority of the calories consumed by UK consumers. This will require the UK government to set clear targets to eliminate imported deforestation from the UK economy; for all public institutions to use their procurement practices to eliminate deforestation from their supply chains ahead of 2030 - for example, this will require all local authorities to work with schools to ensure that school meals are deforestation free; and for all companies selling goods in the UK to commit to eliminating deforestation from their supply chains. **We also propose that the government should urgently begin its planned consultation on mandatory company food waste reporting.**

### **7. Ending childhood hunger**

**We propose the introduction of a target to end household food insecurity and child food poverty in the UK by 2030.** As children spend a significant proportion of their time in school, **we also propose that schools be supported in being able to provide these meals by adopting a whole food systems approach.** **In addition, the government should provide every school child who lives in a household in receipt of universal credit with a free school meal.** This will cost an estimated £275 million but will have health and economic benefits for children living in low-income households.

### **8. Trade as a positive force for the food system**

**We propose that the UK government should legally commit not to reduce or dilute UK standards through trade policy and trade negotiations.** It should help support devolved governments to match such commitments in domestic law. **We also propose that the UK government should ensure that all new trade agreements include provisions to conserve or sustainably manage forests and other ecosystems.** Trade and sustainability chapters of trade agreements should be made mandatory and mechanisms put in place to ensure they are strictly enforced.

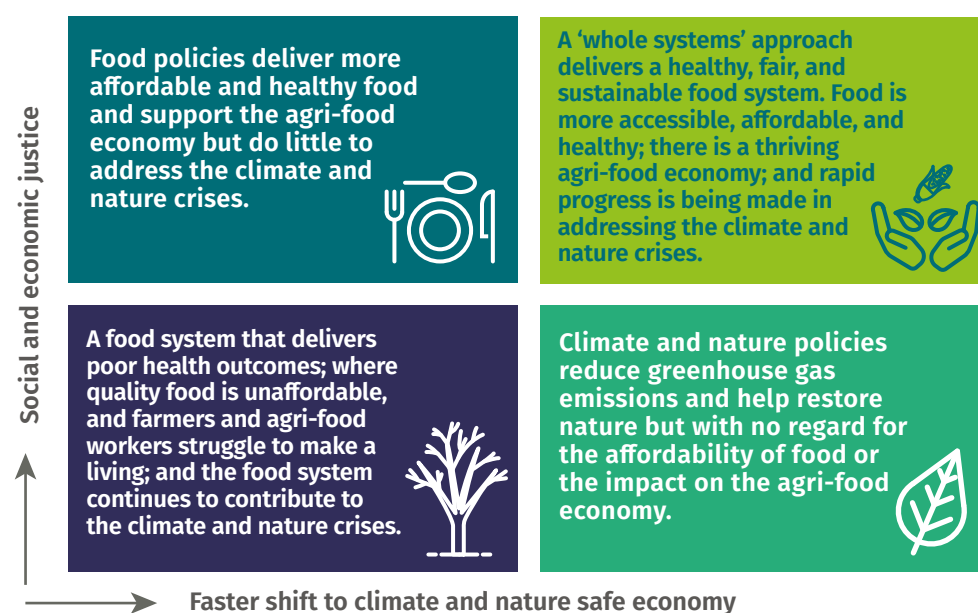
# 1. VISION AND FRAMEWORK: A VIBRANT, HEALTHY AND EQUITABLE FOOD SYSTEM

The vision of the IPPR Environmental Justice Commission is of a vibrant, healthy society, and a clean, innovative economy, driven by the key principle of fairness. Realising this ambition will require a transformation that is both rapid and just, placing people and communities at its heart. It will require a fundamental change to our economic, democratic, and societal model: a programme of renewal.

Delivering this in practice will require that all policies and programmes work together to address the climate emergency and restore nature, as well as improve lives and offer opportunities for all in a transformed and thriving economy – leaving nobody behind.

It is through this framework that the commission is assessing whether individual policy proposals and policy programmes are capable of achieving our goals. It is also through this framework that we will consider the policy proposals for how we can achieve a vibrant, healthy, and equitable food system (figure 1.1).

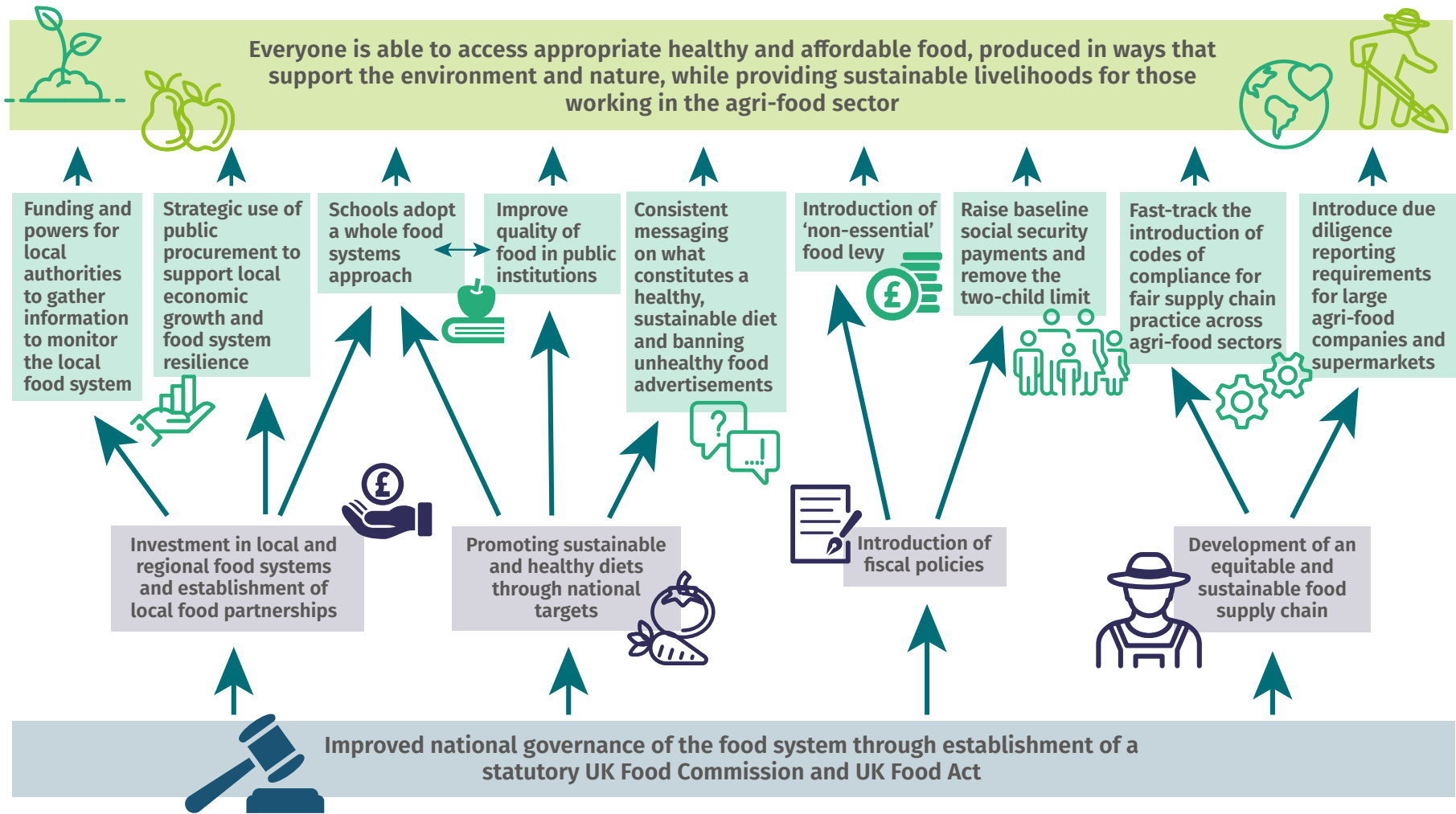
**FIGURE 1.1: JUST TRANSITION FOR THE FOOD SYSTEM**



Source: Authors' analysis

The question for a fair transition is therefore twofold: what impact is change going to have on existing inequalities? And to what extent can a shift towards a more climate and nature positive economy deliver positive impacts across these social justice concerns? The former needs to consider and mitigate against negative, unintended consequences, while the latter means thinking creatively and broadly about the conditions for successful transition. Figure 1.2 illustrates how the recommendations presented in this report interact to deliver a food system that works for everyone.

FIGURE 1.2: INTERACTION OF PROPOSED RECOMMENDATIONS IN THE FOOD SYSTEM



Source: Authors' analysis

## 2. INTRODUCTION

In this report we set out the environmental, social and health challenges currently facing the UK food system. We then consider how, through applying a whole food systems approach, we can start to re-orientate the food system so it works for all members of society while supporting a transition to more sustainable practices and improved livelihoods for those working in the agri-food sector. We then draw on existing work by organisations such as the EAT Lancet Commission and C40 Food Systems Network – as well as expert interviews, stakeholder discussions and information gathered during in our call for evidence – to set out a series of recommendations where immediate action is required if we are to build a food system that works for all.

Greater attention is paid in this report to the food system beyond the farm gate than to the role of agriculture in the transition to a net zero and nature positive economy or the question of fairness for farmers and rural communities. Farmers have a critical role to play: through ceasing harmful practices, delivering more for nature and climate, improving resilience in the face of ecological change, and in continuing to supply the country with nutritious, sustainably produced food. Farmers are already facing changes on multiple fronts and need our collective support to help them deliver the many public goods we expect and hope them to. This associated report will be released in the coming months.

While this report is intended to underline the importance of a whole systems approach to food, it does not, nor could not, propose all the necessary policies and actions necessary. This is not least because, as a system, it cannot be ‘fixed’ in a single sweep but will require collaboration, participation, and expertise from across different sectors and communities.

### 3.

## UNHEALTHY FOOD, UNHEALTHY OUTCOMES

The reality of our current food system is that millions of people across the UK struggle to get enough food to lead healthy, active lives (The Health Foundation 2020a; Sustain 2020), while the ways in which we produce food are a leading cause of species loss, environmental degradation, and climate change. In this section we explore in more detail the environmental and human harms associated with our current food system.

#### FOOD, CLIMATE, AND NATURE

Our current food system is a major contributor of environmental harm, helping to fuel both the climate and nature crises. In the UK, around 9 per cent of greenhouse gas emissions are derived from agriculture (Climate Change Committee 2020), while globally the figure is approximately 23 per cent (IPCC 2020). However, emissions associated with both animal feed production and chemical production are not factored into these figures. These agricultural emissions arise from various sources before the food passes the farm gate, including livestock (specifically methane from ruminants), land use change, poor soil management, farm energy use, and the production and use of animal feed and agricultural chemicals, such as pesticides and inorganic fertiliser. Emissions are particularly high for specific gases, such as methane (accounting for 50 per cent of total UK methane emissions) and nitrous oxide, often released through the application of inorganic fertilisers. In comparison, UK agriculture contributes only around 1 per cent of UK carbon dioxide emissions (Defra 2019), suggesting the drivers and conditions for addressing carbon emissions in UK require reference to national and local contexts.

**“The food system, and agriculture specifically, is the single largest cause of biodiversity decline and species loss over past decades in the UK”**



The food system, and agriculture specifically, is the single largest cause of biodiversity decline and species loss over past decades in the UK. According to the State of Nature Report (Hayhow 2019), 41 per cent of species have seen declines since 1970, with 15 per cent of UK species now threatened with extinction. This has come about through decades of habitat conversion, fragmentation of valuable, nature-rich sites, removal of nature-supportive features such as ponds and hedgerows, and high-input farm management, including the use of fertilisers (and their impact on water sources) and pesticides (and their impact on insect populations). However, with regards to nature and biodiversity, different species have different habitat requirements. For example, some species can thrive in high yielding farmed landscapes that are managed well for nature, while others require low intensity management or larger tracts of semi-natural habitat to succeed.

Globally, agriculture and food production are the key drivers in the loss of remaining nature-rich habitats, particularly in biodiversity hotspots such as tropical forests. This is driven in no small part by demand for a number of high-risk commodities such as soy, palm oil, timber and beef, which has been growing over the past decade. UK demand for seven of these high-risk products

alone has been estimated to require an area 88 per cent the size of the UK (WWF-UK and RSPB 2020). Given that around 45 per cent of food consumed in the UK originates outside the country (Defra 2020), UK demand and consumption cannot be easily decoupled from their global impacts.

### FOOD AND HUMAN HEALTH

Our current food system is also a major contributor to ill health and inequalities across society. Food insecurity, defined as the inability to access enough affordable and nutritious food, affects around 8–10 per cent of UK households (Trussell Trust 2019). The impacts of food insecurity are disproportionately felt by people on lower incomes, the unemployed, lone parent households and Black, Asian and minority ethnic (BAME) groups (Power et al 2020). Low-income communities, with the highest prevalence of food insecure households and lowest levels of life expectancy, face the greatest challenges in accessing healthy, affordable, and appropriate food (The Health Foundation 2020a). Food insecure households are also more likely to be located in neighbourhoods where healthy food options are the least accessible, while processed food outlets are more affordable and readily available (Widener et al 2017).

Insufficient access to food is intimately linked to health outcomes such as delayed cognitive development, heart disease and various types of cancer (as summarised in table 3.1). These outcomes often accumulate over the life-course, culminating in increased risk of chronic disease, reduced quality of life and early mortality. For example, when compared with the least deprived populations, the most deprived populations are nearly 3.5 times more likely to die from cardiovascular disease and 60 per cent more likely to be diagnosed with type 2 diabetes (Public Health England 2017). Difference in diet between socioeconomic groups is a key driver of social inequalities.

**TABLE 3.1: HEALTH AND SOCIAL OUTCOMES ASSOCIATED WITH FOOD POVERTY THAT ACCUMULATE OVER THE LIFE COURSE**

Life stage	Health outcomes associated with food insecurity and food poverty	Social outcomes associated with food insecurity and food poverty
Infants	Delayed socio-emotional, cognitive, motor and neurophysiological development.	More likely to display learning disabilities and behavioural problems.
Children	Increased likelihood of hyperactivity, inattention and poor memory.  Increased risk of obesity and higher frequency of chronic illnesses, including asthma and depression.	Increased susceptibility to learning and behavioural impairments including inattention and poor memory.
Teenagers	Increased risk of depression and chronic illnesses.	Reduced educational attainment compared with peers raised in food secure households and more likely to participate in risk taking behaviours such as smoking.
Adults	Multiple indicators of chronic disease and poorer health including diabetes, heart disease, osteoporosis, certain types of cancer and obesity, as well as reduced life expectancy.	Reduced educational attainment in childhood can result in lost productivity and lower earnings in adulthood, increased risk of poverty and reduced quality of life

Source: Tingay et al 2003; Lee et al 2012; McIntyre et al 2013; Jones 2017

The health and social impacts of a poor diet can be long lasting, with children raised in food insecure homes displaying higher levels of social anxiety, and depression in later life. Poor nutrition is often a cyclical condition. Children living in food poverty can display hindered cognitive development, which in turn leads to poorer school performance and lower future earnings (Loopstra et al 2019). This pattern can keep families and communities locked in cycles of poverty over multiple generations. Good nutrition is essential for normal childhood development, while eating habits and patterns formed in early childhood typically persist into adulthood (Lioret et al 2020). The government's most recent poverty figures show that more than 4 million children are growing up in poverty, a rise of 500,000 over the last five years (House of Commons 2020). This is not just a case of children going hungry as a result of parents being out of work – more than seven in 10 children in poverty have at least one parent in employment.

Individuals and communities already struggling to access food have been further impacted by the Covid-19 pandemic, and the response to the pandemic, experiencing the highest rates of job losses and reduced wages, further restricting their ability to access adequate food (The Health Foundation 2020b). It is estimated that 4.9 million people in the UK, including 1.7 million children (12 per cent of all children), experienced food insecurity in May 2020 – a 250 per cent increase over pre-Covid-19 levels (Food Foundation 2020).

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## 4.

# CHALLENGES AND ISSUES FACING THE FOOD SYSTEM

It is beyond the scope of this work to cover in detail the full breadth of challenges facing the food system. Here, we explore key themes that were identified in our call for evidence, stakeholder discussions, and expert discussions as areas that require immediate and coordinated action across all levels of the food system, in order to develop a vibrant, healthy and equitable food system that works for everyone.

### UNSUSTAINABLE FOOD PRODUCTION PRACTICES

As outlined in previous chapters, the current food system, particularly the modes through which it produces and provisions food, is a major contributor of environmental and human harm, fuelling both the current climate and nature crises. However, the UK farming sector also has the potential to significantly reduce carbon emissions, increase carbon capture, improve water resources, and reduce the use of harmful chemicals, as well as undertake actions to increase biodiversity and improve conditions for both rare and abundant species on farms. The actions that farmers can take to improve environmental outcomes are diverse and their appropriateness will vary according to local conditions and priorities, farming systems, and economic constraints. They can include reducing livestock numbers and rotational grazing, intercropping or employing cover crops, improved soil management techniques, tree and hedgerow planting, pond creation and restoration, among many others (many of these are elements can be captured under the an “agroecological” approach to farming<sup>2</sup>).

The issue of improving farming and land management for nature is often framed as a choice between sharing (improving farming practices to enable species to recover alongside food production, which may reduce yields and therefore require more space) and sparing (working the productive land harder which may reduce nature and setting aside land elsewhere dedicated to nature conservation). In reality, as the Dasgupta Review (2021) on the economics of nature and a recent Chatham House report (Benton et al 2021) both make clear, the best approach is likely to be a mix of both, alongside policies to reduce demand and consumption of high-impact products and of food waste. Knowledge-intensive management focussed on specific outcomes can deliver for food production, nature, and climate, as well as the key considerations of social and economic justice. This might mean producing less food in some areas where reducing stocking densities and diversifying farms might provide more jobs and environmental benefits. In other places applying agro-ecological principles might diversify the range of food produced whilst employing more staff and improving soils. It is worthwhile noting that, irrespective of the specific mix of land use and management pursued in an area, production cannot and must not be pushed beyond sustainable limits and indeed carbon and nature friendly practices can

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2 According to the FAO (2018:1), “Agroecology is an integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and agricultural systems. It seeks to optimize the interactions between plants, animals, humans and the environment while taking into consideration the social aspects that need to be addressed for a sustainable and fair food system”



be neutral or even positive for production yields (Pywell et al 2015, Lechenet et al 2017, Bai et al 2019).

These are key questions for the fairness of transition because the nature and scale of land use decisions will impact the viability of traditional farming communities, could mean the benefits and burdens of both food production and nature conservation are unevenly distributed, will impact overall levels of domestic food production and food security, and will have implications for the UK's global ecological footprint and the extent to which it relies on food produced elsewhere in the world. What the UK can sustainably produce and the land needed for nature and nature-based solutions<sup>3</sup> is crucially impacted by the consumption and dietary choices we make and promote and, therefore, policy for food production and consumption systems needs to be more actively and effectively aligned.

Since the UK's vote to leave the EU – and with it the Common Agricultural Policy – the potential for reform of farm payments to support more climate and nature supportive actions by farmers and land managers was a promising development. The UK government's Health and Harmony policy consultation and paper (UK Government 2018) represented a major shift in approach, while the new Agriculture Act (2020) represents a major milestone for change. The Environmental Land Management Scheme in development for England proposes to reward actions that deliver environmental public goods on land with public money, rather than a basic payment subsidy. With around 70 per cent of land under some kind of agricultural production, such a shift is a welcome and necessary one but new payment schemes alone will not fix the climate and nature crises. To be successful a more strategic approach to land management is required, with the right guidance, decision-making and land use modelling at the right scale, alongside appropriate support and advice for farmers to make the transition. Importantly, farm policy needs greater alignment with policymaking across the food system, including trade, public procurement and the promotion of diets. In addition, a better system of agricultural regulation is needed to stamp out polluting and damaging practices, while farmers producing healthy food sustainably need greater access to fair and stable markets for their goods.

Food waste, throughout the entire food system, presents a notable area of environmental concern. Lost or wasted food represents a waste of money, energy and inputs, as well as signalling a marked public failure in a context in which many face hunger and poor nutrition. Preventing, reducing and repurposing otherwise wasted food is an important element of food system transformation in response to the nature and climate crisis because waste adds further strain to demands on land and ecological resources. As it is likely that some proportion of land will need to be taken out of production to deliver habitat restoration and nature-based solutions, dealing with food waste will be critical to ensuring food security and the most strategic use of resources. While waste on farm is an issue – approximately 1.6 million tonnes of food is wasted during primary production – key drivers of waste lie in supply chains and households (Government Office for Science, 2017).

According to the IPCC (2020), 25-20 per cent of food is lost or wasted globally, contributing between 8 and 10 per cent of global greenhouse gas emissions between 2010 and 2016. It has been estimated that around 10 million tonnes of food is wasted each year in the UK after it leaves the farm, costing around £20

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3 According to the IUCN (Seddon et al 2019:2), nature-based solutions are defined as “actions to protect, sustainably manage and restore natural or modified ecosystems, that address societal challenges (eg climate change, food and water security or natural disasters) effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”.

billion and generating 25 million tonnes of greenhouse gas emissions (WRAP (2019). The UK has made notable progress towards reducing food waste in line with the Sustainable Development Goal 12.3 (to halve global food waste per capita by 2030) and towards delivering on the 2025 Courtauld Commitment (voluntary commitments on food waste, water stress and GHG emissions from food consumption and production) (WRAP 2020).

Nevertheless, more action is needed, especially if reductions in food waste are going to support wider shifts across the food and farming system that are required. Due to Covid, a planned consultation on mandatory company food waste reporting has been delayed and should be swiftly brought back. This is particularly important to influence those harder-to-reach parts of food supply chains and where voluntary approaches have yielded limited progress. Addressing food waste is also something to which public procurement policies and tenders can be successfully applied, given the importance of public contracts to many areas of catering sectors, for example. Through effectively coordinated community and commercial networks and the prudent use of technology, surplus food can also be repurposed to provide healthy and nutritious food to those facing food poverty and insecurity.

### **UNHEALTHY AND UNSUSTAINABLE DIETS**

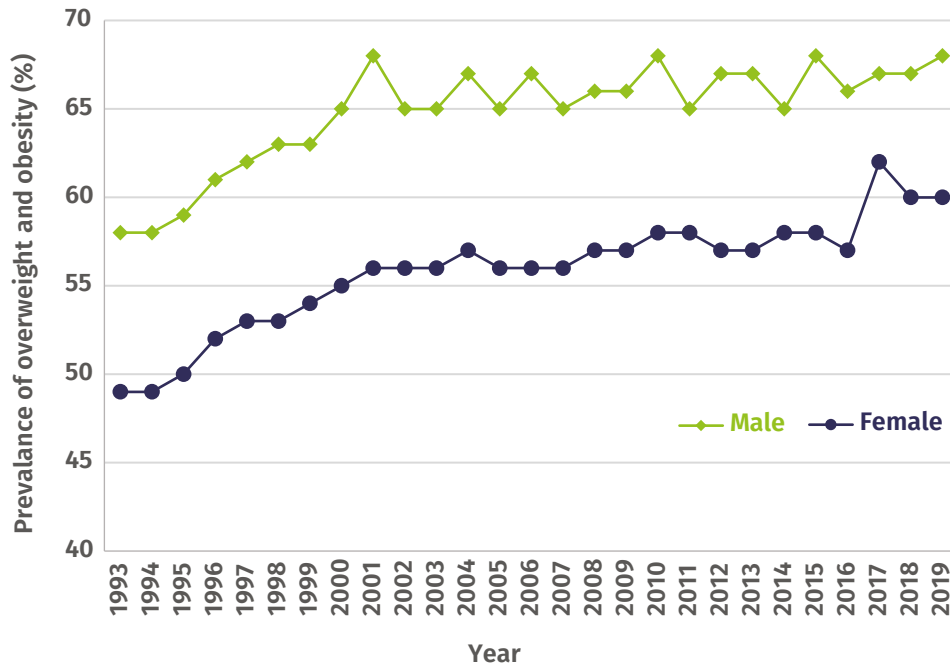
In the UK, only 28 per cent of adults and 18 per cent of children consume the recommended five portions of fruits and vegetables per day (NHS 2018, 2020), while ultra-processed foods make up more than 50 per cent of food that is consumed (Rauber et al 2019). Compared with the rest of Europe, people in the UK consume the highest levels of processed foods (Monteiro et al 2018; Rauber et al 2019). In particular, people in 'food insecure' households – defined as households with uncertain and or inadequate access to food – consume the highest quantity of foods rich in saturated fats, sugars, and salts and the lowest quantity of fresh fruits and vegetables, pulses and whole-grain products (Yau et al 2020).

Diet-related ill health costs the NHS around £6 billion per year (Scarborough et al 2011). By focussing on prevention rather than treatment, the incidence of chronic diseases such as being overweight or obese, tooth decay, high blood pressure, type-2 diabetes, heart disease, stroke, and some cancers can be reduced across society. As many of these health outcomes disproportionately impact vulnerable groups, any action will also narrow health inequities. Improved health, through healthier diets, can also reduce workplace absenteeism, which is estimated to cost the UK economy £18 billion per year (ONS 2018). Some leading causes of workplace absenteeism, such as mental health problems, have similar systematic causes as food poverty.

Most meals consumed in the home, when eating out or served in public and private institutions, do not align with our understanding of a healthy and sustainable diet. As children spend a significant proportion of their time in school, this represents one location where, as a society, we can ensure children are accessing the food they need. The quality of food served in other public institutions also has a direct impact on the health of consumers and the wider food system, including how food is produced, distributed, and purchased. Public institutions, which rely on public money to purchase food, are well positioned to lead the transition to a more equitable food system, with a focus on the provision of healthy food options produced in sustainable ways.

**FIGURE 4.1: THE IMPACTS OF POOR DIET CONTRIBUTE TO THE YEAR-ON-YEAR INCREASE IN OBESITY OBSERVED ACROSS ENGLAND AND OTHER PARTS OF THE UK**

Trends in overweight and obesity prevalence in England among adults (three-year averages)



Source: Health Survey for England 2019

Some progress has been made with government standards requiring schools in England to provide nutritious food and drink (Department for Education 2019) and Commissioning for Quality and Innovation guidance requiring hospitals to provide NHS staff, visitors, and patients with healthy food. However, the focus to date has been on the nutritional value of food, rather than the methods in which the food has been sourced and produced. Of course, it is not just food that is available in public and private institutions that must be improved, action must focus on what people eat throughout their whole lives. While uncertainty still exists on what constitutes a healthy and sustainable diet, the EAT-Lancet Commission propose a diet for adults that is symbolically represented by half a plate of fruits, vegetables and nuts; and half a plate of primarily whole grains, plant proteins (beans, lentils, pulses), unsaturated plant oils, modest amounts of meat and dairy, and some added sugars and starchy vegetables.

### UNHEALTHY FOOD ENVIRONMENTS

Throughout a person’s life, complex social and biological determinants influence their decision on whether or not to purchase and consume healthy food. For young children, dietary decisions are influenced by the socioeconomic status of their parents, an innate desire for high-sugar food, and features of the family environment (Polivy and Herman 2017).

But the situation is more complex for adults. An individual’s income strongly influences their ability to purchase healthy food, while features of the built environment, food advertisements, competing demands on our time, local transport links, and availability of food outlets in our community all influence our food purchasing behaviour (Brug 2008; Marmot 2015; Stait & Calnan 2016). While numerous factors determine our eating behaviour, stakeholder’s

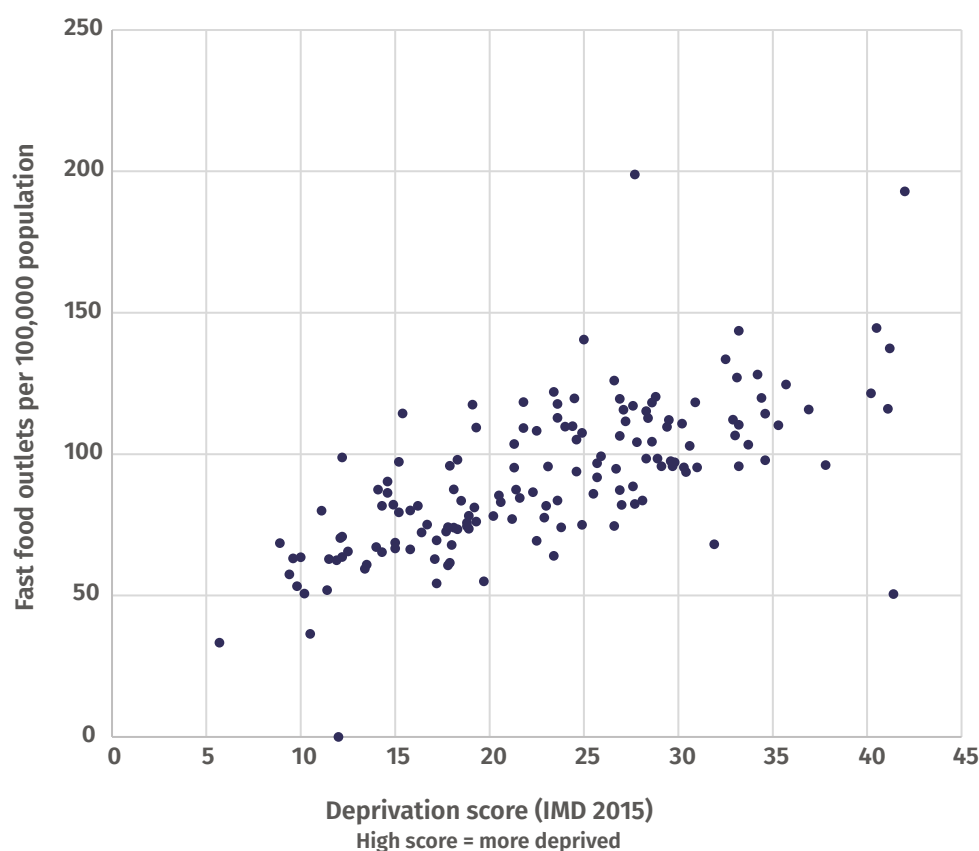
engagement during the development of this report identified three areas that require immediate action: financial challenges (discussed in the next section), features of the built environment and the influence of food advertisements.

The built environment can promote access to healthy, sustainably sourced food options if there is an adequate supply of suitable food outlets. Alternatively, someone's local environment can be a barrier to them accessing healthy food if it is dominated by fast food outlets (Lakerveld et al 2018).

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**FIGURE 4.2: THERE IS A STRONG CORRELATION BETWEEN THE DENSITY OF FAST FOOD OUTLETS AND LOCAL LEVELS OF DEPRIVATION**

The relationship between density of fast-food outlets and local levels of deprivation



Source: Public Health England 2019

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There are also areas in the UK where there is a complete absence of any food outlets, in areas known as 'food deserts' (Janssen et al 2018). In the UK, it is low-income groups that are most likely to live in food deserts, creating yet another barrier in their ability to purchase and consume healthy food. While local authorities, through section 106 (S106) agreements, can influence planning decisions to ensure new developments have an adequate number of food outlets, the government has no authority over the quality of food sold in the majority of neighbourhoods across the UK. Instead, it is the responsibility of food retailers to ensure that people are able to access healthy, sustainable and appropriate food.

Similarly, people living in low-income neighbourhoods tend to be exposed to a greater prevalence of outdoor advertising of foods and drinks high in fat,

sugar, and salt (Backholder et al 2020), while children from socioeconomically disadvantaged and ethnic minority backgrounds are disproportionately exposed to unhealthy TV and online food advertisements (Backholder et al 2020). Exposure to TV and online screen advertising has been shown to significantly increase short-term food consumption (see, for example, Boyland et al 2016) and there is a clear causal relationship between exposure to unhealthy food advertisements and obesity (Norman et al 2016).

Despite a ban on the advertising of food and beverage products high in fat, salt, and sugar during children's television programmes (and other programmes with a high proportion of young viewers) introduced in 2007, food advertising in the UK continues to be dominated by foods that are high in fat, salt, and sugar (Boyland and Halford 2013; Sonntag et al 2015; Azar et al 2018). Further regulation is a potentially cost-effective option for addressing one cause of dietary related illnesses (Lobstein et al 2020). Voluntary codes, however, are unlikely to be sufficient, having been shown to be ineffective at reducing levels of unhealthy food advertisements in other countries (Galbraith-Emami et al 2013).

### **FINANCIAL BARRIERS TO ACCESSING FOOD**

While the relationship between socioeconomic status and food accessibility is certainly complex, there is clear evidence that for the most disadvantaged members of society the primary barrier in purchasing and consuming healthy food is cost (Taylor-Robinson et al 2015). Disadvantaged groups have to regularly limit the amount of money spent on food to cover the cost of other essentials, such as rent, gas and electric bills (Dowler 2008) – ultimately contributing to poorer health outcomes (Taylor-Robinson et al 2015). This can result in a negative feedback loop, in which individuals with worse health then find it more difficult to access food due to increased financial pressures. Indeed, data from the Trussell Trust shows that the top two reasons for relying on food donations are lack of money and delays in receiving benefits (Trussell Trust 2019).

Clearly, the emergency provision of food during times of crisis (the food bank model) will not address the underlying causes of food insecurity and food poverty, as vital as these services are for many households. There is an urgent need to address the structural causes of food insecurity, including poverty and unemployment, while ensuring people can access appropriate food in socially acceptable and dignified ways. The need for coordinated action is more urgent than ever. The Trussell Trust recorded an 89 per cent increase in the number of emergency food parcels given out in April 2020 compared to the same month in 2019 (Trussell Trust 2020), against a backdrop of year on year rises in the number of people struggling to access food.

Cheaper food is an unrealistic solution to food poverty. Further price reductions would likely have a negative impact on food producers and the environment, while doing little to address the causes of food poverty. In addition, sustainably produced food is often more expensive due to the increased cost of production, making it the least accessible option for those on low-incomes. Clearly, a greater emphasis must be placed on ensuring everyone in society has adequate access to appropriate, healthy food. Two approaches that are receiving increased attention are the provision of a minimum income standard and introducing a red and processed meat tax. Fiscal incentives have been successful in Hungary and in Mexico, where relatively small taxes have driven down consumption in unhealthy food and raised revenue. Adopting Mexico's model would mean an 8 per cent tax on non-essential foods with a calorie density of greater than 275kcal/100g. Revenues generated from fiscal measures can then be used to subsidise healthy products for low-income families.

A minimum income standard is an unconditional income that is sufficient to cover an individual's basic financial needs. A minimum income standard is calculated according to what the public think people need for an acceptable minimum standard of living. Ensuring individuals living in poverty have the necessary welfare support is central to securing access to adequate, healthy food.

### ***Unlevel playing fields***

The food system in the UK is dominated by a handful of large companies. Nine supermarket chains hold over 90 per cent of the UK food retail market (Lang 2020) and are largely able to set the terms through which food is produced and traded. While the rise of supermarkets has provided convenience, choice, and low food prices for consumers, their dominant market position and power has enabled corporate agri-food interests to dictate the terms of market access, resulting in narrowing profit margins and the squeezing out of smaller and/or independent businesses and supply chains.

For example, the demands of just-in-time supply chains completely frame how many farm operations are organised, with costs borne out in terms of levels of food waste, environmental impacts, and challenging working conditions. In 2008, the Competition Commission highlighted both the concentration of retail market share and the transfer of costs and risks as two critical issues impacting the structure and fairness of the groceries market. The Groceries Code Adjudicator has been in place since 2013, but structural problems in the sector persist.

The 2020 Agriculture Act introduced new government powers to improve the fairness of supply chains in agri-food sectors, with the government announcing in February 2021 plans to introduce a new code of conduct in the dairy sector. Such developments are welcome, but more action is needed across the agri-food sectors to ensure that farmers alone are not forced to bear the costs of more sustainably produced food and so that independent and innovative producers are not forced out of the market.

Historically, the concentration of power in the food system has been enabled by a relatively laissez-faire approach by the UK government. In contrast, the European Commission has been actively concerned with regulating unfair trading practices in agricultural supply chains, introducing new legislation in 2019. Outside of the EU, the extent to which the UK government is willing and able to regulate large supply chain actors remains to be seen. Since the advent of the Covid-19 pandemic, supermarkets have also consolidated their market power further with lockdowns negatively impacting wholesale and hospitality sectors, while retail markets have reaped the reward of increased reliance on domestic food preparation and consumption.

### ***Employment in the agri-food sector***

The food sector is a major employer, providing around 3.9 million jobs (including agriculture and farmers) and 13.2 per cent of the national workforce. Work in the food sector in the UK is diverse but often marked by a disproportionate reliance on part-time, female, and migrant labour compared with the UK-wide labour market. A significant proportion of work in the agri-food sector is considered 'precarious' – a status signified by low wages, self-employment, seasonal and temporary work, and agency contracts (Sustain 2016, Heasman and Morley 2017).

In light of Brexit and other factors, the sector is facing an increasingly significant challenge of accessing sufficient and adequate labour – particularly in sectors such as soft fruits and horticulture, where work is relatively well paid but demanding in terms of skills and working conditions. The food retail sector employs around 1.12 million people and, while some progress has been made towards increasing wages, many major supermarkets are still not living wage employers (Sustain 2016).



Many food retail workers are also in receipt of welfare support, meaning the state is subsidising the wages of many working in the sector. The Covid-19 crisis has revealed something of the paradox of work in the food sector; the realisation of food workers as “key workers”, critical to the success of the economy as a whole, and the low-paid “low-skilled” nature of many of the jobs in the sector. In order to secure a just transition towards a climate and nature conducive food system, work in the sector also needs to be addressed. This means ensuring acceptable working conditions and adequately paid jobs, ensuring work and workers in the sector are properly recognised and appreciated, and ensuring jobs in the sector are attractive and sustaining.

## GOVERNANCE OF THE FOOD SYSTEM

Given the complex and interconnected nature of contemporary food systems, any effective approach to food policy needs to be deliberate, concerted, and cross-cutting. However, for several decades, the UK government has adopted a laissez faire approach in the governance and management of the food system, despite its strategic importance. The limited role of the government in managing the food system has resulted in a paucity of data and insight as to how well the food system is functioning to deliver on the multiple areas it is intended to deliver. The health and environmental crises in which the food system is entangled arguably necessitate a whole new approach to food governance, reflecting the nature of the problems to hand.

Within the UK, local and national government have done little to address the impacts of unsustainable food production practices, rising levels of food insecurity, and poor diets in comparison to countries such as Canada, which have been at the forefront of introducing whole food systems policies via the establishment of regional and national food strategies (Food Secure Canada 2019). Instead, it has been the responsibility of charity and third sector organisations to address food poverty by providing emergency food relief. Food banks have become the ‘normal’ way to access food for many people living in low-income areas, removing any form of individual decision-making in food eating behaviour (Caraher and Furey 2018).

**“any effective approach to food policy needs to be deliberate, concerted, and cross-cutting. However, for several decades, the UK government has adopted a laissez faire approach”**



Traditionally, UK policies and programmes have focussed on the different dimensions of the food system in isolation, rather than taking a whole food systems approach (Willett et al 2019). Government departments such as the Department for Environment, Food and Rural Affairs (DEFRA) have focussed on food production and the environmental impacts of the food system; departments such as the Department of Health and Social Care, as well as health institutions (such as the NHS and Public Health England) have focussed on tackling dietary related diseases such as obesity and type 2 diabetes; while third-sector organisations and local authorities have been responsible for addressing socio-economic outcomes such as food poverty and hunger.

This piecemeal approach to managing our food system has received increased criticism over recent years, particularly in light of inequalities in accessing food observed during the Covid-19 pandemic, with calls from the House of Commons Environment, Food and Rural Affairs Committee to appoint a minister of food security, who would be “empowered to collect robust data on food insecurity and draw together policy across departments on food supply, nutrition and welfare” (House of Commons 2020). While this announcement has been broadly welcomed, it is vital that this be a cross departmental position that takes a whole food

systems approach, covering healthy diets, food poverty, resilience in the supply chain and the environmental footprint of food production.

Increasingly, organisations such as the EAT-Lancet Commission, Milan Urban Food Policy Pact, RUAF (RUAF) and C40 Food Systems Network (C40 Cities 2017) have shifted the international agenda toward a more whole food systems approach, bringing together both the environmental and social justice dimensions of the food system. Nationally, this shift has been driven by regional food councils, food strategies, food foundations, local authorities, and third sector organisations; however, this coordinated approach is still to be adopted at the national level. Although this may be starting to change with the establishment in 2019 of the UK's first National Food Strategy.

### **CONSIDERING UK TRADE POLICY**

While the focus for this report is largely on what governments in the UK should do domestically to address the systemic challenges of the food system, it is important to acknowledge the significance of international businesses, organisations, and processes shaping our food system. Key among these is the global trading system and the extent to which it drives biodiversity loss and carbon emissions and impacts the ways in which governments can introduce policies to tackle public policy issues.

Agriculture and food production are highly trade-sensitive policy areas. The strategic importance of these sectors and the competitive pressure of international trade means that they are sectors that continue to be major recipients of state support and subsidies. As the nations of the UK transition away from farm basic payments towards systems of public money for public goods, effective and coherent trade policy is critical to support efforts to tackle climate change and restore nature. The high environmental, food safety and animal welfare standards the UK public currently enjoys must be upheld as the UK government continues to develop its international trade policy. Trade arrangements into which the UK enters must neither serve to undermine the good work of domestic producers, nor “offshore” the UK's ecological and carbon footprint to other countries. The recently published report from the Trade and Agriculture Commission (2021) contains some important and helpful recommendations to engender trade policy that meets the UK's nature and climate ambitions but further scrutiny and advice is needed. A UK Food Commission could help provide this on an ongoing basis and ensure trade policy is aligned with and helping to deliver a suit of food policy objectives.



## 5.

# TAKING A WHOLE FOOD SYSTEMS APPROACH

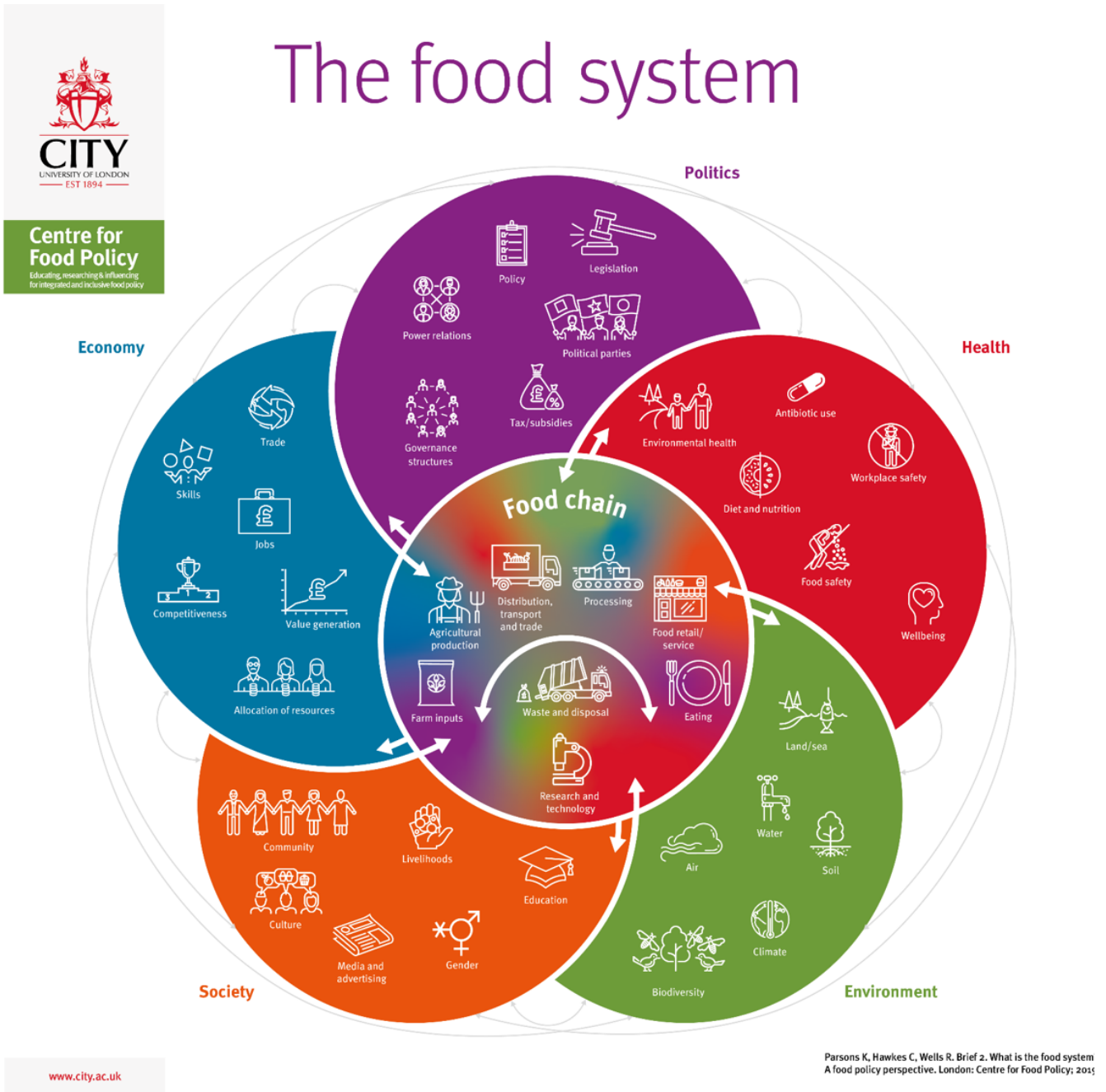
Developing a healthy, fair, and sustainable food system requires a radical change in how we view our food system. It requires bold policies and interventions that apply a 'whole food systems' approach (Bhunnoo 2019; Parsons 2019). This would consider complex and interconnected elements of the food system, from food production, processing, packaging, distribution, buying, selling, eating, and waste reduction; to addressing causes of food poverty, malnutrition, hunger, and dietary-related diseases.

Adopting a whole food systems approach enables us to understand how all dimensions of the food system interact and influence one another. It prevents interventions targeting one part of the food system from unintentionally impacting factors in other parts of the system (Bhunnoo and Poppy 2020), as shown in figure 5.1.

In taking a whole food systems approach, we are able to look beyond what is traditionally viewed as the 'food system' and consider wider aspects of social justice. For example, food poverty is best understood as one manifestation of wider patterns of poverty associated with problems such as unemployment, the rising costs of living and rent, insufficient access to infrastructure and transport, inadequate welfare provision, inequitable access to a good education and insufficient access to food. In taking a whole food systems approach, we are recognising that to achieve food security we must also consider multiple complex social issues.

The manner in which multiple areas of social concern converge in the food system mean that it is unhelpful to deal with them in siloes, where policy changes are likely to have broader impacts. Our recommendations below, show what change is required at the local, regional, and national level to ensure our food system works for everyone.

FIGURE 5.1: THE INTERRELATED ASPECTS OF THE FOOD SYSTEM, WITH THE FOOD SUPPLY CHAIN AT THE CENTRE



Source: Parsons, Hawkes and Wells 2019

## 6.

# RECOMMENDATIONS TO DELIVER OUR VISION

Here we outline the specific action that must be taken to realise the vision of a fairer food system that allows everyone, irrespective of social or economic group, to access appropriate healthy and affordable food, produced in sustainable and environmentally friendly ways, while providing meaningful and sustainable livelihoods for those working in the agri-food sector.

### IMPROVED GOVERNANCE OF THE FOOD SYSTEM

Food policy should be delivered by those entities and levels of government best equipped to deal with the issues at hand, while contending with the complex nature of devolved politics and decision-making. This involves acknowledging that while commonalities exist, the different countries of the UK are all at different points on their journey towards developing sustainable and equitable food systems. Policy must also be delivered by individuals that best understand their local food system: local food producers, businesses, government, and citizens. Finally, action must apply a whole food systems approach, recognising that any action taken is likely to have broader impacts on other dimensions of the food system. Improved governance of the food system requires the following.

- 1. The establishment of an independent, statutory UK Food Commission with the express function of monitoring, advising and holding the governments in the UK to account on their delivery of sustainable and fair food systems.** We urge the National Food Strategy to propose the establishment of The UK Food Commission in their National Food Strategy: Part Two report, due to be published in June 2021. The body should be UK-wide in scope but structured in such a way as to accommodate different policy approaches in devolved contexts and to facilitate cooperation between geographies. The UK Food Commission must apply a whole food systems approach and oversee the implementation of the recommendations outlined in this report.
- 2. The establishment of the UK Food Commission should be delivered through a new UK Food Act, enshrining the right to food in law.** The Food Act should include a framework for setting strategic food system objectives and targets, along with the robust and transparent means of monitoring progress. Comparable legislation should be delivered by devolved parliaments in each of the UK countries.
- 3. The scaling up of the local food partnerships model to ensure all areas of the UK are covered by a local food strategy.** Local partnerships, placed on a statutory footing, will provide a platform for cooperation across different sectors and areas of government connected by food, while detailed strategies will provide a vision and roadmap for food systems locally. These will account for local concerns and dynamics, will help coordinate actions, and will align with national priorities and targets.
- 4. The provision of adequate funding and powers for local authorities to gather key data and information regarding food production and consumption across their jurisdictions.** This will help local authorities to support those individuals most struggling to access food, support the development of effective and fair markets, and to help respond to any shock experienced by the local food system.

## INVESTING IN LOCAL AND REGIONAL FOOD SYSTEMS

Decision-making must be placed in the hands of those closest and most able to manage food issues effectively, while acknowledging the need for appropriate, strategic oversight and planning. Within these structures, individuals, and communities, as consumers and citizens, should be empowered to shape what the food economy looks like locally and nationally. This also offers a means through which local people can have a greater stake in how decisions are made, what their areas look like, and in local democratic processes. Investing in local and regional food systems requires the following.

5. **Investment in local and regional food systems infrastructure, including food hubs, local markets and processing facilities.** This could be funded through the development of a dedicated tranche of the proposed UK Shared Prosperity Fund, shaped around local sustainable food economies as a means for helping to 'level up' regions. With approximately one in seven people employed in food and farming in the UK (Defra 2020, Hasnain et al 2020), one in seven pounds should be spent on sustainable food economies through this fund. This would amount to an annual spend of approximately £300 million per year and should be coordinated in partnership with devolved and regional governments. This funding stream could be matched by local spending and investment from the private sector. Such a programme could provide opportunities to connect local supply and demand for healthy, sustainably produced food and to align with reforms to farm payment schemes.
6. **Scaling up the strategic use of public procurement to help support local economic growth, food system resilience, and the production and availability of sustainably produced food.** This would mean:
  - as per the Dynamic Food Procurement National Advisory Board recommendation (2020), the UK government expedites the Crown Commercial Service's 'future food framework' and delivers a national dynamic food procurement programme, enabling small and medium-sized enterprises (SMEs) to better compete for public sector contracts through a proven procurement model
  - local governments seek to adopt the Preston model for the strategic use of local public spending to support local economic growth and sustainable food provision.
7. **Utilising existing provisions and proposed changes in the planning system in England to better deliver strategic sustainable food system objectives.** This would mean that food system considerations (health, jobs, environmental impact) can be taken into account in local planning decisions. Similarly, grants, low-cost loans, or preferential rates, as well as provision of business advice, could support independent businesses or community enterprises delivering public benefits through food provision to access town centre premises. This would have the added benefit of helping to reinvigorate struggling high streets.
8. **Building on existing experience and best practice in deliberative democracy to pilot the development of local citizens food assemblies.** These should be established to involve local people in decisions involving or impacting food at the local or regional scale. These could act as credible mechanisms for involving citizens in local democracy, providing better oversight and accountability, and unlocking decisions in complex and contentious areas.

## PROMOTING SUSTAINABLE AND HEALTHY DIETS

The recently published National Food Strategy: Part One includes a commitment to improving public sector procurement of food and drink. It is vital that the National Food Strategy: Part Two takes this even further by outlining specific actions that both public and private institutions should take to source sustainable produce and providing meals that are of high nutritional quality. The National Food Strategy should also aim to improve population health by promoting dietary changes for which there is broad consensus that they are beneficial to both human and planetary health, such as those outlined by the EAT-Lancet Commission (EAT-Lancet Commission 2020). The promotion of sustainable and healthy diets requires the following.

- 9. The establishment of nationally agreed targets to reduce UK consumption of meat and dairy and improve the quality of meat and dairy consumed.**  
This means government should adopt the Eating Better recommended target and framework of a 50 per cent reduction in consumption by 2030, with a corresponding uplift in the proportion of meat and dairy consumed that meets high environmental and welfare standards. Delivery should come through a range of different levers, including public and private sector procurement, and should be informed by the impact of shifting demand on land use outcomes, including local and regional variation and the role of nature-based solutions. This should also form part of more strategic approaches to land-use policy, as well as a programme of just transition for those regions impacted .
- 10. The introduction of new targets to improve the quality of food in public institutions (hospitals, schools, universities, prisons).** Public food procurement, as described by C40, is the purchasing of food and the contracting out of catering services in full or in part by public bodies and agencies. A tangible step to reducing the environmental impacts of food production and improving health is to support public food procurement policies and contracts that supply more plant-based options and sustainably produced meat and dairy options, taking into consideration food production methods and the carbon footprint of food provided.
- 11. Implementing collective and consistent government messaging, at both the national (such as PHE and DEFRA) and the regional level, advising the public on what constitutes a healthy and sustainable diet.** This should be based on the diet endorsed by the EAT-Lancet Commission. Specifically, a diet for adults that is symbolically represented by half a plate of fruits, vegetables and nuts; and half a plate of primarily whole grains, plant proteins (beans, lentils, pulses), unsaturated plant oils, modest amounts of meat and dairy, and some added sugars and starchy vegetables.
- 12. The introduction of a non-essential food levy on a range of products that contain excessive levels of sugar, fat, and salt.** We recommend an 8 per cent levy on non-essential foods with a calorie density greater than 275kcal/100g. This would target cakes, sweets, crisps, ready meals and takeaways – but not healthy products that happen to be high in one of salt, sugar or fat. The revenue generated from the fiscal measures should be used to subsidise healthy products for low-income families. This should be delivered through a ‘healthy child voucher scheme’, worth £21 per week, and redeemable for items not covered in the non-essential food tax. This would cost an estimated maximum of £1.5 billion per year, assuming each voucher is used in full – and would disproportionately benefit regions outside the South, where deprivation is higher, in line with government’s ‘levelling-up’ ambitions. Importantly, it should not replace any existing support, from free school meals to welfare payments.

13. **A total ban of ultra-processed/high fat, salt, and sugar food and beverage advertisements at times and in media most accessed by children.**
14. **End the UK's 'pro-obesity environment' by making the healthy choice the easy choice.** This will include providing free fruit and vegetables in schools, supermarket sponsored community cooking classes, and ensuring that no school is adjacent to a fast-food restaurant.

### TARGETING UNSUSTAINABLE FOOD PRODUCTION, CONSUMPTION AND WASTE

As outlined in this report, agriculture and food production are the key drivers in the loss of remaining nature-rich habitats, particularly in biodiversity hotspots such as tropical forests. In terms of reforming farming practices here at home, recommendations for a fair transition for farming will be set out in future report. Here we make recommendations on reducing deforestation in UK supply chains, where there is some movement with the possible introduction of legislation on reducing deforestation in UK supply chains, but the government could still go yet further. We also make recommendations for reducing food waste.

15. **The government should urgently begin its planned consultation on mandatory company food waste reporting** which has been delayed due to Covid-19 and seek to swiftly implement new policies following its conclusion.
16. **The UK should strive to remove all agri-food products associated with deforestation from UK supply chains.** As WWF Cymru (Sanderson Bellamy and Marsen 2020) has called for in the case of Wales, the aim should be to make the UK a deforestation-free country before 2030, by which point sustainably produced food should represent a majority of the calories consumed by UK consumers. Such an approach will require the following.
  - For the UK government to set clear targets to eliminate imported deforestation from the UK economy, including such targets in its procurement practices across all levels of government and public sector bodies. The UK government will need to cooperate with national governments around the world to support the legality, transparency, and sustainability of their traded agricultural goods.
  - For all public institutions to use their procurement practices to eliminate deforestation from their supply chains ahead of 2030. For example, this will require all local authorities to work with schools to ensure that school meals are deforestation free.
  - For all companies selling goods in the UK to commit to eliminating deforestation from their supply chains and be placed under an obligation to ensure rigorous due diligence and report against the environmental and social impacts of their supply chains.

### ADDRESSING WIDER SOCIAL INEQUALITIES

Many challenges faced by the food system are symptomatic of - and contribute towards - wider patterns of inequality across society. Food poverty, for example, is not distinct from wider poverty. Difficulties people face in accessing affordable, sustainable, and healthy food will not be solved through solutions impacting food alone. Getting food onto shelves is only small element of ensuring food security. Instead, reform of the welfare system is needed to ensure families have enough income to meet at least their basic needs and policies are needed across government to address the high costs of living for many people. Addressing wider inequalities many people face in accessing food requires the following.

17. **Ensuring that all members of society have the financial means to access a regular source of appropriate, healthy food.** To achieve this, we suggest raising the baseline social security payment (the universal credit standard allowance)



to reach 40 per cent value of the minimum income standard by the decade, up from the current 30 per cent. It is currently estimated at 30 per cent for a single person over the age of 25 without children. For a single person over the age of 25 years old, a 40 per cent target would raise the standard allowance from around £410 to £555 per month. In order to reverse the rising number of children living in food poverty, we advise coinciding the increased social security payment with the removal of the 'two-child limit', which restricts universal credit payments to the first two children born.

18. **The removal of the current benefit cap, which restricts the total welfare support a household can receive to below the average earnings of a working household.** It was estimated in 2018/19 that the projected cost of limiting the benefit cap was £295 million.
19. **Investing in a UK-wide network of community-owned and managed food hubs to act as the primary delivery point of food-based support to individuals and families.** The purpose of these should be a gradual shift away from a charity dependence model of emergency food provision to an integrated, non-means tested, accountable and effective food service to communities. It would do this by providing prepared meals and groceries to users, combatting food insecurity and social isolation, while acting as destination for nutritious ingredients that would otherwise go to waste and helping to build stocks and capacity to deal with future disruption. Local authorities could help support such initiatives through preferential or subsidised accessible town centre premises.

## REBALANCING FOOD SUPPLY CHAINS

Unbalanced supply chains enabling a disproportionate degree of power in the hands of a handful of agri-food companies and supermarkets is symptomatic of an unsustainable food system. As well as undermining the fairness of food systems and the ability of producers to realise the value they add to products, unbalanced supply chains affect the prospects of a transition to more sustainable production by shifting costs onto those least able to pay. To be viable, the costs of transition to more sustainable production and consumption need to be better distributed. The rebalancing of current food supply chains requires the following.

20. **Using powers established in the Agriculture Act (2020), the UK government should fast-track the introduction of codes of compliance for fair supply chain practice across agri-food sectors.** This is already underway in the dairy sector but should be quickly expanded, particularly to those sectors most at-risk from and impacting on the climate and nature crisis.
21. **Extending the remit of the Grocers Code Adjudicator (GCA) to include businesses further up supply chains, so that it not only covers relationships between supermarkets and their immediate suppliers, but also primary producers and purchasers.**
22. **Introducing due diligence reporting requirements for large agri-food companies and supermarkets trading in the UK to ensure supply chains are transparent and suppliers are legally compliant.** There is welcome provision in the environment bill for such a mechanism in regards to forest risk commodities. Such requirements could be added to and made more stringent over time.
23. **Create a 'supply chain resilience fund' to support food producers prepare for future shocks and supply chain disruption.** The scheme could work by providing grants to small and medium-sized companies or community organisations to invest in actions to future-proof supply chains against sudden change. This could include shared logistics and transport facilities and digital platforms for coordinating supply and demand in the event of food surplus or shortages.

## ENDING CHILDHOOD HUNGER

It is early childhood experiences, such as being raised in food insecure households, that often have the greatest impact on the physical and mental health of individuals in later life. Nutrient deficiency during childhood is known to hinder cognitive development, which in turn leads to poorer school performance and lower future earnings. Ensuring that all children have equal access to healthy food will ensure that all members of society are able to achieve their full potential by breaking patterns of food insecurity that keep families and communities locked in cycles of poverty over multiple generations. Bringing an end to childhood requires the following.

24. **The introduction of a target to end household food insecurity and child food poverty in the UK by 2030.**
25. **Supporting children to meet the dietary recommendations outlined by the British Nutrition Foundation** (three meals per day, plus snacks, consisting of food from the four main food groups). As children spend a significant proportion of their time in school, schools must be supported in being able to provide these meals by adopting a whole food systems approach, where food purchasing, preparation and cooking skills form a part of the overall school curriculum. This needs to be endorsed by the national school curriculum, with adequate funding provided for schools to train cooking staff and procure adequate, healthy, and sustainable food. The government should also provide every school child who lives in a household in receipt of universal credit with a free school meal. This will cost an estimated £275 million but will have health and economic benefits for children living in low-income households.

## TRADE AS A POSITIVE FORCE FOR THE FOOD SYSTEM

UK trade policy can be a positive force for tackling the nature and climate crises but only through concerted and strategic action. The strategic use of trade policy is fundamental to ensuring the UK acts as a responsible nation on climate and the environment on the world stage. This means the UK government must act as follows.

26. **Clearly define its overarching trade strategy and objectives, in consultation with key stakeholders, including business, civil society, and devolved governments.** Trade policy should be shaped by a shared vision for the food system, and not the other way around.
27. **Convert promises into action and legally commit not to reduce or dilute UK standards through trade policy and trade negotiations.** It should help support devolved governments to match such commitments in domestic law.
28. **Include provisions to conserve or sustainably manage forests and other ecosystems in all new trade agreements. Trade and sustainability chapters of trade agreements should be made mandatory and mechanisms put in place to ensure they are strictly enforced.**
29. **Provide legal mechanisms for democratic scrutiny of trade policy, negotiations, agreement, and texts, as well as for a level of parliamentary ratification befitting the ambition of being a global leader for the environment.**



# REFERENCES

- Azar F P, Mamizadeh M, Nikniaz Z, Ghojzadeh, M, Hajebrahimi S and Abdolahi H M (2018) 'Content analysis of advertisements related to oral health in children: A systematic review and meta-analysis', *Public Health*, 156:109–116
- Backholer K, Gupta A, Zorbas C, Bennett R, Huse O, Chung A, Isaacs A, Golds G, Kelly B and Peeters A (2020) 'Differential exposure to, and potential impact of, unhealthy advertising to children by socio-economic and ethnic groups: A systematic review of the evidence', *Obesity Reviews*. DOI: 10.1111/obr.13144
- Bai X, Huang Y, Ren W, Coyne M, Jacinthe P A, Tao B, Hui D, Yang J, Matocha C (2019) 'Responses of soil carbon sequestration to climate-smart agriculture practices: A meta-analysis', *Global Change Biology*, 25 (8): 2591–2606
- Benton T G, Bieg C, Harwatt H, Pudasaini Rand Wellesley L (2021) *Food system impacts on biodiversity loss: Three levers for food system transformation in support of nature*. [https://www.chathamhouse.org/sites/default/files/2021-02/2021-02-03-food-system-biodiversity-loss-benton-et-al\\_0.pdf](https://www.chathamhouse.org/sites/default/files/2021-02/2021-02-03-food-system-biodiversity-loss-benton-et-al_0.pdf)
- Boyland E J and Halford J C (2013) 'Television advertising and branding: Effects on eating behaviour and food preferences in children', *Appetite*, 62:236–241
- Boyland E J, Nolan S, Kelly B, Tudur-Smith C, Jones A, Halford J C and Robinson E (2016) 'Advertising as a cue to consume: A systematic review and meta-analysis of the effects of acute exposure to unhealthy food and non-alcoholic beverage advertising on intake in children and adults', *The American Journal of Clinical Nutrition*, 103:519–533
- Bhunoo R (2019) 'The need for a food-systems approach to policy making', *The Lancet*, 393(10176):1097–1098
- Bhunoo R and Poppy G M (2020) 'A national approach for transformation of the UK food system', *Nature Food*, 1(1):6–8C
- Brug J (2008) 'Determinants of healthy eating: Motivation, abilities and environmental opportunities', *Family Practice*, 25:50–55
- C40 Cities (2017) 'Food insecurity: Cities at the frontline', blog post. [https://www.c40.org/blog\\_posts/food-insecurity-cities-at-the-frontline](https://www.c40.org/blog_posts/food-insecurity-cities-at-the-frontline)
- Caraher M and Furey S (2018) 'Growth of food banks in the UK (and Europe): Leftover food for leftover people', *The Economics of Emergency Food Aid Provision*, 1:25–48
- Climate Change Committee (2020) *Reducing UK emissions: 2020 Progress Report to Parliament*. [https://www.theccc.org.uk/wp-content/uploads/2020/06/Reducing-UK-emissions-Progress-Report-to-Parliament-Committee-on-Cli..\\_002-1.pdf](https://www.theccc.org.uk/wp-content/uploads/2020/06/Reducing-UK-emissions-Progress-Report-to-Parliament-Committee-on-Cli.._002-1.pdf)
- Dasgupta P (2021) *The Economics of Biodiversity: The Dasgupta Review*. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/962785/The\\_Economics\\_of\\_Biodiversity\\_The\\_Dasgupta\\_Review\\_Full\\_Report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/962785/The_Economics_of_Biodiversity_The_Dasgupta_Review_Full_Report.pdf)
- Defra (2019) 'Agricultural statistics and climate change', 9th edition, dataset. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/835762/agriclimate-9edition-02oct19.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/835762/agriclimate-9edition-02oct19.pdf)
- Defra (2020) 'Food statistics in your pocket: Global and UK supply', dataset. <https://www.gov.uk/government/statistics/food-statistics-pocketbook/food-statistics-in-your-pocket-global-and-uk-supply>
- Department for Education (2019) *Standards for school food in England*. <https://www.gov.uk/government/publications/standards-for-school-food-in-england>
- Dowler E A and O'Connor D (2012) 'Rights-based approaches to addressing food poverty and food insecurity in Ireland and UK', *Social Science and Medicine*, 74:44–51

- Dynamic Food Procurement National Advisory Board (2020) *Manifesto for a resilient, adaptable and sustainable UK food system: Fast lessons from Covid-19*. [https://ad555873-f343-4a7c-b674-b0e4792f5f9a.filesusr.com/ugd/6b24d7\\_a54481998a1c4b45bbd44542515b592e.pdf](https://ad555873-f343-4a7c-b674-b0e4792f5f9a.filesusr.com/ugd/6b24d7_a54481998a1c4b45bbd44542515b592e.pdf)
- EAT-Lancet Commission (2020) 'The EAT-Lancet Commission on Food, Planet, Health', webpage. <https://eatforum.org/eat-lancet-commission/>
- Eating Better (2021) *Sourcing Better: A pathway to less and better meat and dairy*. [https://www.eating-better.org/uploads/Documents/Sourcing\\_Better\\_Framework.pdf](https://www.eating-better.org/uploads/Documents/Sourcing_Better_Framework.pdf)
- Fabian Society (2015) *Hungry for Change*. <https://www.fabians.org.uk/wp-content/uploads/2015/10/Hungry-for-Change-web-27.10.pdf>
- FAO (2018) *The 10 Elements of Agroecology: Guiding the transition to sustainable food and agricultural systems*. <http://www.fao.org/3/i9037en/i9037EN.pdf>
- Food Foundation (2020) 'The impact of Coronavirus on food: How have things changed since the start of lockdown?', data release. <https://foodfoundation.org.uk/new-food-foundation-data-food-insecurity-and-debt-are-the-new-reality-under-lockdown/>
- Food Secure Canada (2019) 'Next steps for a national food policy in Canada', news story. <https://foodsecurecanada.org/time-ripe-national-food-policy-canada>
- Galbraith-Emami S and Lobstein T (2013) 'The impact of initiatives to limit the advertising of food and beverage products to children: A systematic review', *Obesity Reviews*, 14(12):960–74
- Government Office for Science (2017) *Food Waste: A Response to the Policy Challenge*. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/643557/food-waste-policy-challenge-response\\_-\\_FINAL.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/643557/food-waste-policy-challenge-response_-_FINAL.pdf)
- Hasnain S, Ingram J and Zurek M (2020) *Mapping the UK Food System – a report for the UKRI Transforming UK Food Systems Programme*. <https://www.eci.ox.ac.uk/research/food/downloads/Mapping-the-UK-food-system-digital.pdf>
- Hayhow D B, Eaton M A, Stanbury A J, Burns F, Kirby W B, Bailey N, Beckmann B, Bedford J, Boersch-Supan P H, Coomber F, Dennis EB, Dolman S J, Dunn E, Hall J, Harrower C, Hatfield J H, Hawley J, Haysom K, Hughes J, Johns D G, Mathews F, McQuatters-Gollop A, Noble D G, Outhwaite C L, Pearce-Higgins J W, Pescott O L, Powney G D and Symes N (2019) *The State of Nature 2019*, The State of Nature Partnership. <https://nbn.org.uk/wp-content/uploads/2019/09/State-of-Nature-2019-UK-full-report.pdf>
- Heasman M and Morley A (2017) *Earning a Crust? A review of labour trends in UK food manufacturing*. <https://foodresearch.org.uk/publications/review-of-labour-trends-uk-food-manufacturing/>
- House of Commons (2020) *Covid-19 and food supply*. <https://committees.parliament.uk/publications/2187/documents/20156/default/>
- IPCC (2020) *Climate Change and Land: IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems*. <https://www.ipcc.ch/srccl/>
- Janssen H G, Davies I G, Richardson L D and Stevenson L (2018) 'Determinants of takeaway and fast food consumption: A narrative review', *Nutrition Research Reviews*, 31:16–34
- Jones A D (2017) 'Food insecurity and mental health status: a global analysis of 149 countries', *American Journal of Preventive Medicine*, 53(2):264–273
- Lakerveld J, Mackenbach J D, Rutter H and Brug J (2018) 'Obesogenic environment and obesogenic behaviours', *Advanced Nutrition and Dietetics in Obesity*, 1:132
- Lang T (2020) *Feeding Britain: our food problems and how to fix them*, Penguin UK
- Lechenet M, Dessaint F, Py G, Makowski D and Munier-Jolain N (2017) 'Reducing pesticide use while preserving crop productivity and profitability on arable farms', *Nature Plants*, 3
- Lee J S, Gundersen C, Cook J, Laraia B and Johnson M A (2012) 'Food insecurity and health across the lifespan', *Advances in Nutrition*, 3(5):744–745
- Lioret S, Campbell K J, McNaughton S A, Cameron A J, Salmon J, Abbott G and Hesketh K D (2020) 'Lifestyle Patterns begin in early childhood, persist and are socioeconomically patterned, confirming the importance of early life interventions', *Nutrients*, 12(3):724

- Lobstein T, Neveux M and Landon J (2020) 'Cost, equity and acceptability of three policies to prevent obesity: A narrative review to support policy development', *Obesity Science and Practice*, 6(5):562–583
- Loopstra R, Reeves A and Tarasuk V (2019) 'The rise of hunger among low-income households: An analysis of the risks of food insecurity between 2004 and 2016 in a population-based study of UK adults', *J Epidemiol Community Health*, 73(7):668–673
- Marmot M (2015) 'The health gap: The challenge of an unequal world', *Lancet*, 386:2442–2444
- McIntyre L, Williams J V, Lavorato D H and Patten S (2013) 'Depression and suicide ideation in late adolescence and early adulthood are an outcome of child hunger', *Journal of Affective Disorders*, 150(1):123–129
- Milan Urban Food Policy Pact (2020) 'Milan Urban Food Policy Pact', website. <https://www.milanurbanfoodpolicypact.org/>
- Monteiro C A, Cannon G, Levy R, Moubarac J C, Jaime P, Martins A P, Canella D, Louzada M and Parra D (2016) 'NOVA The star shines bright', *World Nutrition*, 7(1–3):28–38
- Monteiro C A, Moubarac J C, Levy R B, Canella D S, da Costa Louzada M L and Cannon G (2018) 'Household availability of ultra-processed foods and obesity in nineteen European countries', *Public health nutrition*, 21(1):18–26
- NHS (2018) *Health Survey for England 2018*. <https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2018>
- NHS (2020) 'How many calories does a child of 7 to 10 need?', webpage. <https://www.nhs.uk/common-health-questions/childrens-health/how-many-calories-does-a-child-of-7-10-need/>
- Norman J, Kelly B, Boyland E and McMahon A T (2016) 'The impact of marketing and advertising on food behaviours: Evaluating the evidence for a causal relationship', *Current Nutrition Reports*, 5:139–149
- ONS (2018) 'Sickness absence in the UK labour market: 2018', webpage. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/sicknessabsenceinthelabourmarket/2018>
- Parsons R, Hawkes C, Wells R (2019) 'What is the food system? A food policy perspective', Centre for food policy, webpage. <https://openaccess.city.ac.uk/id/eprint/22795/>
- Polivy J and Herman C P (2017) 'Restrained eating and food cues: recent findings and conclusions', *Current Obesity Reports*, 6:79–85
- Power M, Doherty B, Pybus K and Pickett K (2020) 'How Covid-19 has exposed inequalities in the UK food system: The case of UK food and poverty', *Emerald Open Research*
- Public Health England (2017). *Health Profile for England 2017*. London: Public Health England. <https://www.gov.uk/government/publications/health-profile-for-england>
- Pywell R F, Heard M S, Woodcock B A, Hinsley S, Ridding L, Nowakowski M and Bullock J M (2015) 'Wildlife-friendly farming increases crop yield: evidence for ecological intensification', *Proceedings of the Royal Society B: Biological Sciences*, 282 (1816)
- Rauber F, da Costa Louzada M L, Steele E M, Millett C, Monteiro C A and Levy R B (2018) Ultra-processed food consumption and chronic non-communicable diseases-related dietary nutrient profile in the UK (2008–2014). *Nutrients*, 10(5): 587
- Rauber F, da Costa Louzada, M L, Steele E M, de Rezende L F, Millett C, Monteiro C A and Levy R B (2019) 'Ultra-processed foods and excessive free sugar intake in the UK: a nationally representative cross-sectional study', *BMJ open*, 9(10): e027546
- RUAF Urban Agriculture and Food Systems (2020) 'RUAF: City Region Food Systems', website. <https://ruaf.org/>
- Sanderson Bellamy A and Marsden T (2020) *A Welsh Food System Fit For Future Generations: A report by the Sustainable Places Research Institute at Cardiff University*, commissioned by WWF Cymru. [https://www.wwf.org.uk/sites/default/files/202003/WWF\\_Full%20Report\\_Food\\_Final\\_3.pdf](https://www.wwf.org.uk/sites/default/files/202003/WWF_Full%20Report_Food_Final_3.pdf)
- Scarborough P, Bhatnagar P, Wickramasinghe K K, Allender S, Foster C and Rayner M (2011) 'The economic burden of ill health due to diet, physical inactivity, smoking, alcohol and obesity in the UK: An update to 2006–07 NHS costs', *Journal of public health*, 33(4):527–535

- Seddon N, Sengupta S, García-Espinosa M, Hauler I, Herr D and Rizvi A R (2019). *Nature-based Solutions in Nationally Determined Contributions: Synthesis and recommendations for enhancing climate ambition and action by 2020*. <https://portals.iucn.org/library/sites/library/files/documents/2019-030-En.pdf>
- Sonntag D, Schneider S, Mdege N, Ali S and Schmidt B (2015) 'Beyond food promotion: A systematic review on the influence of the food industry on obesity-related dietary behaviour among children', *Nutrients*, 7(10):8565–8575
- Stait E and Calnan M (2016) 'Are differential consumption patterns in health-related behaviours an explanation for persistent and widening social inequalities in health in England?', *International Journal for Equity in Health*, 15:171
- Sustain (2016) *Agricultural labour in the UK*. [https://www.sustainweb.org/publications/agricultural\\_labour\\_in\\_the\\_uk/](https://www.sustainweb.org/publications/agricultural_labour_in_the_uk/)
- Sustain (2020) 'What is food poverty? Who is most at risk?', webpage. <https://www.sustainweb.org/foodpoverty/whatisfoodpoverty/>
- Taylor-Robinson D, Rougeaux E, Harrison D, Whitehead M, Barr B and Pearce A (2013) 'The rise of food poverty in the UK', *British Medical Journal*, 347:7157
- The Health Foundation (2020a) *Health Equity in England: The Marmot Review 10 Years On*. <https://www.health.org.uk/publications/reports/the-marmot-review-10-years-on>
- The Health Foundation (2020b) 'Emerging evidence on Covid-19's impact on money and resources', blog post. <https://www.health.org.uk/news-and-comment/blogs/emerging-evidence-on-Covid-19s-impact-on-money-and-resources>
- Tingay R S, Tan C J, Tan N C W, Tang S, Teoh P F, Wong R and Gulliford M C (2003) 'Food insecurity and low income in an English inner city', *Journal of Public Health*, 25(2):156–159
- Trade and Agriculture Commission (2021) *Final Report, March 2021*. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/969045/Trade-and-Agriculture-Commission-final-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/969045/Trade-and-Agriculture-Commission-final-report.pdf)
- Trussell Trust (2019) *State of Hunger: A study of poverty and food insecurity in the UK*. <https://www.stateofhunger.org/wp-content/uploads/2019/11/State-of-Hunger-Report-November2019-Digital.pdf>
- Trussell Trust (2020) *Lockdown, lifelines and the long haul ahead: The impact of Covid-19 on food banks in the Trussell Trust network*. <https://www.trusselltrust.org/wp-content/uploads/sites/2/2020/09/the-impact-of-Covid-19-on-food-banks-report.pdf>
- UK Government (2018) *Health and Harmony: The future for food, farming and the environment in a Green Brexit*. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/684003/future-farming-environment-consult-document.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/684003/future-farming-environment-consult-document.pdf)
- Widener M J, Minaker L, Farber S, Allen J, Vitali B, Coleman P C and Cook B (2017) 'How do changes in the daily food and transportation environments affect grocery store accessibility?', *Applied Geography*, 83:46–62
- Willett W, Rockström J, Loken B, Springmann M, Lang T, Vermeulen S, and Jonell M (2019) 'Food in the Anthropocene: The EAT–Lancet Commission on healthy diets from sustainable food systems', *Lancet*, 393(10170):447–492
- WRAP (2019) *The Food Waste Reduction Roadmap – Progress Report 2019*. <https://wrap.org.uk/resources/report/food-waste-reduction-roadmap-progress-report-2019>
- WRAP (2020) *Courtauld Commitment 2025: 2020 Annual Report*. [https://wrap.org.uk/sites/default/files/2021-01/The-Courtauld-Commitment-2025-Annual\\_Report-2020.pdf](https://wrap.org.uk/sites/default/files/2021-01/The-Courtauld-Commitment-2025-Annual_Report-2020.pdf)
- WWF and RSPB (2020) *Riskier Business: The UK's Overseas Land Footprint*. [https://www.wwf.org.uk/sites/default/files/2020-07/RiskierBusiness\\_July2020\\_V7\\_0.pdf](https://www.wwf.org.uk/sites/default/files/2020-07/RiskierBusiness_July2020_V7_0.pdf)
- Yau A, White M, Hammond D, White C and Adams J (2020) 'Socio-demographic characteristics, diet and health among food insecure UK adults: Cross-sectional analysis of the International Food Policy Study', *Public Health Nutrition*, 23(14):2602–2614

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