


Food Matters

Towards a Strategy for the 21st Century

The Strategy Unit
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'Food: (n) something that people and animals eat,
or plants absorb, to keep them alive.'
Cambridge Advanced Learner's Dictionary

'There is no love sincerer than the love of food.'
George Bernard Shaw. 'Man and Superman'

'The destiny of nations depends on the manner
in which they feed themselves.'
Jean-Anthelme Brillat-Savarin. 'The Physiology of Taste'

Foreword by the Prime Minister



The rise of popular interest in food policy issues, and growing public awareness that what we choose to eat impacts on everything from animal welfare to our health and the protection of the environment, has led to massive transformation

in Britain's food culture over the past 10 years. This cultural change, along with more recent events in global food markets, has brought new and urgent policy challenges to the fore, which governments must act to meet.

To ensure that the UK's food policy framework could meet these new challenges, in September 2007 I commissioned the Strategy Unit to examine our approach to food policy right across the board. This report sets out the conclusions of that work, providing an overarching statement of government food policy that sets a benchmark for the action we must take – both in the UK and globally – to ensure our long-term food security, the sustainability of food production and consumption, and the promotion of public health.

Recent food price rises are a powerful reminder that access to ever more affordable food cannot be taken for granted, and it is the family finances of the poorest in our society that are hit hardest when food prices increase. But the principal food security challenge for the UK is a global one. We cannot deal with higher food prices in the UK in isolation from higher prices around the world – attempting to pursue national food security in isolation from the global context is unlikely to be practicable, sustainable or financially rational.

So to tackle higher prices both here in Britain and in developing countries, where food often accounts for more than half of a family's spending, we will continue to play a leading role in combating

instability in commodity markets and building a more resilient global food chain, as well as maintaining a supportive environment for competitive UK food producers. If food production in Africa and elsewhere in the developing world reached its potential, global food output would be much higher, far fewer people would go hungry and the threat of food-related political and social instability around the world would recede.

As well as the need to address this rise in prices, we must also do more to safeguard the health of both our nation and our environment. It is now clear that diet is one of the leading causes of ill-health in our society, with our current patterns of food consumption leading to thousands of early deaths each year. We also need to take measures to lessen the environmental impact of the food that we eat, producing more food with fewer resources and fewer greenhouse gas emissions. And with the average household throwing away food worth hundreds of pounds each year, there is a clear opportunity both to save money and to cut back on waste.

This report has benefited from the support and advice of many organisations and individuals across the country – and I particularly welcome its proposals for ensuring that the Government's food policies are developed in a more coordinated way in future.

But it is just a start. We can set the right framework, but we will need everyone – from the consumers who use their buying power to shape new markets, to the producers right along the food chain who supply the food we want to buy – to play their part and to work together if we are to make our food safer, healthier and more environmentally sustainable in the years to come.

A handwritten signature in black ink that reads "Gordon Brown".

Gordon Brown
Prime Minister



Executive summary

The aims of this report are: to review the main trends in food production and consumption in the UK; to analyse the implications of those trends for the economy, society and the environment; to assess the robustness of the current policy framework for food; and to determine what the objectives of future food strategy should be and the measures needed to achieve them.

Diet and attitudes to food have changed markedly in recent years in the UK – and will continue to do so. Demand for better quality food has risen, and people aspire to eat both more healthily and to buy food that has a reduced impact on the environment. But consumers also want affordability and food that fits their lifestyles – as demonstrated by the demand for convenience and by people eating outside of the home more often.

Over the longer term, food prices have fallen relative to incomes and to the prices of other goods and services, although recent rises in food prices have put a brake on this trend. The less well off continue to devote a significantly higher proportion of their income to buying food than the better off.

The food and drink supply chain is a major part of the UK economy, accounting for 7% of GDP and employing 3.7 million people in everything from food retailing to restaurants and canteens to farming and fishing. Food manufacturing is the UK's single largest manufacturing sector.

The food system faces a series of future challenges in relation to:

- economics and equity – recent increases in global commodity prices have brought to an end the long-term decline in the price of food, and few expect food prices to return to past lows;
- health – an estimated 70,000 premature deaths in the UK could be avoided each year if UK diets matched nutritional guidelines;
- safety – the food that we eat in the UK is safer than it has ever been but continuing vigilance is needed to minimise food contamination; and
- environment – the food chain has huge environmental impacts (around 18% of UK greenhouse gas (GHG) emissions are related to food production and consumption).

The Government's vision for the food system is one that is more sustainable – economically, socially and environmentally. The future strategic policy objectives for food should be to secure: fair prices, choice, access to food and food security through open and competitive markets; continuous improvement in the safety of food; a further transition to healthier diets; and a more environmentally sustainable food chain.

Many of the elements required for a comprehensive food policy are already in place. But central government needs to better integrate them and to work with the public, food chain businesses and other stakeholders, and in consultation with other tiers of government, to put a new policy framework in place.

This report addresses the major issues facing the food system in the UK and sets out a series of agreed actions – all of which will be taken forward by the Government. The key actions and conclusions are outlined below:

- Bringing together, for the first time, integrated information and advice for consumers on the impacts of food on health and the environment.
- Making it easier for consumers to make healthy choices when eating out.
- Recognising that community groups, voluntary organisations and social enterprises have an important role to play in supporting activities that promote healthy eating and more sustainable production and consumption, and in encouraging public debate about food issues, and thus in promoting new social norms that facilitate behavioural and cultural change.
- There is no room for complacency about food safety. Smarter approaches are needed to ensure that interventions focus on the points of highest risk in the food chain.
- In view of the evidence of its importance for diet and health outcomes, making further progress with the 5 A DAY campaign to increase average daily consumption of fruit and vegetables is a priority. Renewed focus is needed on targeting groups where intake remains low, such as low-income families, and on working with industry to take the campaign forward through expanding the range of products that can count towards the target, and improving the clarity of messaging to consumers.
- The public sector in England should be leading by example. More nutritious, environmentally sustainable food will be delivered through a new 'Healthier Food Mark' linked to standards for food served in the public sector. The standards will help in delivering better food with existing resources. The scheme will be voluntary initially and piloted within central government, HM Prison Service and NHS services. The Government will then consider if compliance should be made compulsory in England for central government and for prisons. As the scheme progresses, all public bodies in England will eventually be encouraged to sign up – ensuring a minimum standard of healthier food across the public sector.
- Well-functioning, competitive markets should provide fair prices for consumers and a fair deal throughout the supply chain. Reducing distortions in agricultural trade and raising agricultural productivity in the developing world would improve global food security.
- Recent rises in food commodity prices call for a concerted international response. The UK Government has acted promptly to address the challenges posed by increases in global food prices. Actions taken include a £455 million aid package and work with international agencies to redouble efforts to raise agricultural productivity, especially in Africa.
- Maintaining global food security while responding to climate change is a critical collective challenge for the 21st century. The Government's Chief Scientific Adviser is commissioning a major new study to examine how the global food system needs to evolve in a world adapting to, and mitigating, climate change.

- The risk that changes in world animal feed markets – together with European Union (EU) rules on importing genetically modified crops – will create problems for the UK’s regulatory system for food, and for the economics of food production, need to be better understood.
- On-farm GHG emissions are set to be the focus of increasing attention in the years ahead, creating significant challenges and opportunities for European farming. There are practical steps that the UK can take to prepare, and it can perform a key role in leading the EU debate.
- England needs a packaging waste management system that does more to encourage prevention of packaging waste and supports the recovery and recycling of such waste from households and businesses.
- UK consumers spend an average of £420 per household each year on food that they then throw away. Eliminating household food waste would deliver major benefits, including a reduction in GHG emissions equivalent to taking one in five cars off UK roads. There are many simple, practical things that can be done by families to reduce the food that they waste (such as storing vegetables in the fridge) and greater efforts should be made to extract the maximum renewable energy from what remains, rather than sending it to landfill.
- The Prime Minister has asked the Cabinet Office to establish and support a Food Strategy Task Force to monitor ongoing developments in the food system and food markets, to drive forward implementation of all the measures in this report and to publish regular updates on progress.

Britain’s food culture is changing in step with the lifestyles and interests of a more affluent society

ES.1 Consumers’ shopping habits and cooking and eating patterns in the UK today demonstrate an increasing interest in the convenience, taste, quality and origin of food. The diversity of products in shops and on menus is greater than ever before. Price still matters – recent economic uncertainty is making many think about what value they place on food and what they put in their shopping basket. But this sits alongside rising demand for better quality food produced to a set of values that increasing numbers of

people are prepared to pay for, such as free-range chicken. Many people aspire to eat more healthily, but often these intentions are not met; most consumers are still not eating five portions of fruit and vegetables a day and consume much more saturated fat, salt and added sugar than is good for their health.

The food and drink supply chain is a key part of the British economy but different parts of the food chain face different challenges

ES.2 The food and drink supply chain – from farming to food retailing to canteens and restaurants – accounts for 7% of UK national

output and supports around 3.7 million jobs. Spending on food and non-alcoholic drink is worth around £129 billion per year. Food and soft drinks manufacturing is the UK's single largest manufacturing sector, generating some £16.5 billion in added value each year¹.

ES.3 The economic picture for farming is mixed. Grain prices received by arable farmers are now high and, despite higher input costs, the outlook is positive. UK livestock farming faces strong competition from elsewhere in Europe and overseas, and has been hit hard by a long series of animal disease outbreaks, while producers of pigs and poultry have been particularly affected by recent rises in the costs of animal feed on international markets. The whole sector is continuing to adjust to reforms in the Common Agricultural Policy (worth £3 billion each year in financial support to the UK) and to the tightening of environmental standards. Farming seems set for further change amidst robust global demand for food and increased volatility in world markets, and with the prospect of continuing reform of the Common Agricultural Policy.

ES.4 Food retailing is highly concentrated – at least two-thirds of sales are accounted for by just four retailers. There has been a huge proliferation of products on offer to consumers; the food and drink industry introduces 10,000 new products each year². Convenience stores have responded to the competitive pressure from large retailers by forming 'symbol groups', sharing common

branding and economies of scale. Traditional street markets have continued to decline but there has been a rapid growth in the number of farmers' markets, indicative of the resurgence of interest in the quality and provenance of food. Other than in contract catering, the food services sector (restaurants, cafes, pubs, fast food outlets, etc) is much more fragmented but has prospered as consumers eat out of the home more often.

Recent increases in global commodity prices have brought an end to the long-term decline in food prices

ES.5 Rising prices in international agricultural commodity markets, together with higher energy costs, have put a brake on the long-term trend of food becoming ever more affordable for consumers.

ES.6 The average UK household now devotes around 9% of its expenditure to food, down from 16% in 1984. But the poorest 10% of households in the UK saw 15% of their expenditure spent on food in 2005–06, whereas the richest 10% spent just 7%³. Low-income households also spend proportionately more on basic staples such as milk, eggs and bread, which are among the products to have seen the biggest price increases in recent months. So, increases in the cost of food still hit the poorest the hardest.

ES.7 Agricultural commodity prices have risen substantially since 2006, especially grains.

¹ Office for National Statistics (ONS) *Annual Business Inquiry* (June 2008)

² Mintel, direct communication

³ ONS (2007) *Family Spending 2006*

A prompt response by the world community to these price changes is critically important, especially for the poor in the developing world, for whom 50–80% of household expenditure can be absorbed by food⁴. Price rises have contributed to social unrest in a number of countries and threaten severe hardship for some of the poorest people on the planet, urban and rural populations alike. The UK is responding with targeted aid and is working with partners to provide financial and other support to the countries most affected. It is also pressing for a speedy conclusion to the World Trade Organization's Doha Development Agenda, with reductions in the present level of distortion of agricultural trade.

- ES.8** As farmers respond to market signals by increasing output, futures traders are converting expectations of good harvests into lower forward prices. But constraints on international trade in food, including export bans, could still see these trends reversed, and the vagaries of weather and other events make the outlook uncertain. It is widely expected that market volatility will be a fact of life for the world's food economy for some years to come.
- ES.9** Global food stocks are at relatively low levels. The effect of population growth on demand for grain is compounded by the transition to a more meat-intensive diet that is taking place in many emerging economies⁵. Robust demand, together with high energy costs and the ever-present prospect of drought and

poor weather, in part due to climate change, mean that few experts expect food prices to return to past lows for the foreseeable future.

The safety of food underpins consumer confidence in the food system – and cannot be taken for granted

- ES.10** Food is as safe as it has ever been. Public confidence in food has increased in recent years following the problems of the past, such as BSE (bovine spongiform encephalopathy) in cattle. Yet it is estimated that there are still around 765,000 cases of food poisoning each year in England and Wales, and the rate of decline seems to be slowing⁶. Deaths due to *Listeria* are rising. Microbiological contamination of meat supply chains is a continuing challenge, as is the threat of diseases transferring to humans from animals and poultry. Vigilance is needed to reduce the risk of food contamination, particularly in respect of foods imported from outside the EU.

Changes in eating patterns would bring huge health gains here in the UK

- ES.11** Poor diet is known to influence the risk of cancer, heart disease and other conditions. The importance of nutrition for mental health and well-being is gradually becoming clearer. Around 70,000 fewer people would die prematurely each year in the UK if diets matched the nutritional guidelines on fruit and vegetable consumption, and saturated

⁴ Food and Agriculture Organization

⁵ Production of 1 kg of beef is said to require 7–10 kg of grain

⁶ Food Standards Agency (2007) *Annual Report of the Chief Scientist*

fat, added sugar and salt intake⁷. There are social inequalities within diet-related ill health that demand attention. And alongside the social impacts, the economic burdens of diet-related ill health are huge – perhaps £6 billion in additional NHS costs alone each year⁸.

- ES.12** The dietary health of those less able to care for themselves is also a real concern. A national survey in 2007 found that 28% of people (mostly elderly) admitted to hospitals and care homes in the UK were malnourished⁹.
- ES.13** Consumer awareness of the importance of healthy eating is rising. Indeed it is one of the strongest trends in the marketplace. New product development and reformulation of existing recipes by the food industry are helping to make healthier food options more accessible. But major behavioural changes and shifts in cultural norms are required before healthy diets are the norm.
- ES.14** Patterns of eating and exercise need to change further if the UK is to reverse the rising levels of obesity. Nearly a quarter of adults and about 10% of children are already classed as obese. There are challenges here too for the public sector as an employer. There may be more than 3 million obese and overweight people on the public sector payroll. Globally, it is estimated that there are a billion overweight people, 300 million of them obese¹⁰, while at least 800 million are chronically hungry due to poverty and lack of access to food¹¹.

Despite the progress made, we are still a long way from having an environmentally sustainable food chain

- ES.15** The food chain has huge environmental impacts. Reducing the food chain's dependence on energy, water and other resources will reduce its exposure to future increases in resource prices. Reducing the quantity of waste and GHG emissions can improve resource efficiency and anticipate the changes required for the transition to a low-carbon economy.
- ES.16** Farming helps to maintain the much-loved appearance and character of the UK countryside and its place in the national self-identity. Grassland and other habitats supported by farming sustain valued ecosystems and the species within them. But these systems are sensitive, as changes in farming practice can threaten or boost biodiversity.
- ES.17** Around 18% of UK GHG emissions are related to food production and consumption. Nearly half of these emissions come from farms, mostly in the form of methane and nitrous oxide that fall outside current UK domestic targets for carbon dioxide (CO₂), and are beyond the scope of the EU Emissions Trading Scheme and other carbon pricing mechanisms¹².

7 Strategy Unit (2008) *Food: An analysis of the issues*

8 Rayner M and Scarborough P (2005) The burden of food related ill health in the UK, *Journal of Epidemiology and Community Health*, 59, 1054–7

9 British Association for Parenteral and Enteral Nutrition; National Nutrition Screening Week 2007. See www.bapen.org.uk

10 World Health Organization, www.who.int/dietphysicalactivity/publications/facts/obesity/en/

11 World Food Programme, *Winning the War on Hunger*, www.wfp.org/policies/introduction/other/documents/guide_winning_hunger/default.html

12 ONS (2007) *Environmental Accounts, Spring 2007*

ES.18 The food chain generates large quantities of waste food and material, such as packaging. Food waste alone results in unnecessary GHG emissions equivalent to 18 million tonnes of CO₂ each year. Packaging has an important role in presenting, protecting and preserving food products, but there is much more to be done to reduce unnecessary packaging and raise recycling rates.

ES.19 In many parts of the world, food production is based on unsustainable patterns of water use. Under-pricing and mismanagement of water resources are widespread. On a global basis, the amount of fresh water available per person is falling rapidly¹³. Worldwide, soils are similarly under pressure as a result of poor land management (over-grazing, over-irrigation, run-off, etc). There is a clear need for countries, industries and communities to address these issues.

ES.20 Global fish stocks continue to decline. In the UK we import most of our most popular fish – cod and haddock – for want of adequate domestic stocks, and have developed a taste for exotic species reared in the tropics (such as tiger prawns). A stronger focus on sustainable sourcing from consumers, food retailers, caterers and restaurateurs would help to encourage the fishing industry here and abroad to adopt sustainable management practices.

The long-term challenges for world food security are more fundamental still

ES.21 At a global level, food output must rise to feed a growing, wealthier population. The World Bank estimates that cereal production needs to increase by 50% and meat production by 85% between 2000 and 2030 to meet demand¹⁴. This implies further increases in agricultural productivity.

ES.22 But productive land, as well as water, fossil fuels and other natural resources, are set to become scarcer. And the food chain, especially farming, is a large contributor to global GHG emissions. Carbon released by land clearance, methane from ruminant animals and nitrous oxide released from fertilisers and manure help to contribute to the GHG emissions from agriculture and land-use change. Agriculture is estimated to account for 10–12% of the total emissions of the gases that contribute to the human-induced global warming effect¹⁵ (land-use change, such as deforestation for farming, adds more).

ES.23 None of this is sustainable in the long term, especially if the world community has embarked (as it must) on an aggressive programme of cuts in total GHG emissions. Well before 2050, the world will need farming systems capable of feeding 8–11 billion people within a resource-light, low-carbon economy. The necessary progress towards this outcome will not happen of its own accord.

¹³ United Nations Environment Programme (2002) *Global Environmental Outlook 3*, www.unep.org/geo/geo3/english/pdfs/synthesis.pdf

¹⁴ World Bank (2007) *World Development Report 2008*

¹⁵ Intergovernmental Panel on Climate Change (2007) *Fourth Assessment Report: Working Group III Report Mitigation of Climate Change*

There are clear gains to be had from cutting food waste

ES.24 In the developing world, up to 40% of food harvested can be lost before it is consumed owing to the inadequacies of processing, storage and transport¹⁶. Much of this is avoidable with more efficient infrastructure and logistics systems. Here in the UK, widespread concern about higher food prices sits awkwardly alongside evidence showing that consumers throw away 4.1 million tonnes of food that could have been eaten – worth an average of £420 per household – every year¹⁷.

But an isolationist attitude to national food security is unlikely to be part of the solution

ES.25 The UK produces about half of the food consumed here, and is about 60% ‘self-sufficient’ if UK exports and local consumption are set against UK production. Most UK food imports come from elsewhere in the EU (68% in 2006) and the UK is well placed to access the food it needs from world markets, where required¹⁸. Attempting to pursue national food security in isolation from the global context is unlikely to be practicable, sustainable or financially rational, not least because key inputs (such as energy, feed and fertiliser) are sourced globally¹⁹. Poor weather and animal disease can hit output anywhere, including the UK.

ES.26 Improving competitiveness in food production, raising sustainable output and building a successful food chain economy

are important objectives in their own right. They may result in ‘positive’ movement in self-sufficiency measures but do not need to be justified in those terms.

ES.27 But increasing global food security makes for a more stable world, which is in the common interest. If yields in Africa and elsewhere reached their potential, global food output would be much higher, far fewer people would go hungry and the threat of food-related political and social instability around the world would decrease. The recent international market fluctuations re-emphasise the positive case for trade reform and completion of the Doha Round, reducing distortions in agricultural markets and providing price incentives for farmers around the world to produce food.

These challenges mean that the UK needs a stronger and more integrated approach to food policy

ES.28 Many of the issues we face as a society – poverty, public health, climate change and others – have a food dimension. But direct interventions focused on the food system will often not be the solution because the root of the problem often lies elsewhere. Nonetheless, food cuts across many aspects of public policy and managing the multiple challenges in a consistent, joined-up manner is far from straightforward.

ES.29 The UK needs a clearer public policy framework for food and the machinery in government to help deliver it. The key elements of that framework should be

¹⁶ World Resources Institute (1998) *Earth Trends: Featured Topic*, http://earthtrends.wri.org/pdf_library/feature/agr_fea_disappear.pdf

¹⁷ Waste and Resources Action Programme (2008) *The Food We Waste*

¹⁸ Department for Environment, Food and Rural Affairs (Defra) (2008) *Agricultural Quick Statistics*

¹⁹ The UK, a net energy importer, is around 63% self-sufficient in fertiliser and imports significant quantities of soya-based animal feed (Defra, unpublished)

a new shared vision for the food system of the future, a set of core strategic objectives that respond to central aspects of that vision, and an integrated statement of strategy that sets out how to move forward.

- ES.30** There is a future of food that is far more sustainable – economically, environmentally and socially. It is a future where consumers are able to access healthy, low-impact food that fits their lifestyles and time pressures – whether cooking from basic ingredients or buying a prepared meal. The food chain is populated by successful, innovative food businesses and is a major source of wealth creation and employment. Farming is no longer subsidised. Natural resources are responsibly managed and their external costs and benefits properly priced. Healthy eating is the norm, and both easy and enjoyable. Diet-related ill health and obesity are in steep decline. Public sector food is of a universally high standard and makes a positive contribution to a nutritionally balanced diet.
- ES.31** The UK Government's strategic policy objectives should be to secure:
- fair prices, choice, access to food and food security through open and competitive markets;
 - continuous improvement in the safety of food;
 - the changes needed to deliver a further transition to healthier diets; and
 - a more environmentally sustainable food chain.

ES.32 The Government will test and refine the new strategic framework for food set out in this report as part of an open and collaborative process to be run over the next year.

ES.33 Government action to realise this vision and these strategic objectives is needed in three areas: (i) active engagement with consumers; (ii) working in partnership with the supply chain; and (iii) leadership by example. A series of measures under each of these headings are set out in this report – all of which will be taken forward by the Government.

More can be done to help consumers choose safe, low-environmental-impact food and a healthier diet

ES.34 The Government will do more to join up its advice to consumers on different food issues, focusing on health, food safety and the environment. The Food Standards Agency (FSA) will expand its current advice to provide a one-stop-shop to consumers looking for information and advice on nutrition, food and sustainability, and food safety. Campaigns and engagement efforts on food-related issues will be better coordinated across departments.

ES.35 Public policy needs to work with key consumer trends and, specifically, recognise that people are eating out more often. The FSA will extend its programme focused on food eaten out of the home. It will work with food businesses and consumers

to understand what information consumers would find helpful when eating out of the home, and to improve the nutritional standard of the food on offer.

- ES.36** Reaching the 5 A DAY target for fruit and vegetable consumption could mean that around 42,000 premature deaths are avoided each year. Progress has been made but we need to go further. As part of its broader communication strategy on healthier eating, the Government will develop messages targeted at specific population groups where consumption is low (such as young men). It will adopt a specific target of increasing fruit and vegetable consumption in low-income young families.
- ES.37** People have become more interested in food production and provenance. The public sector, including local authorities, can nurture this by supporting farmers' markets and food fairs, retaining allotments (making best use of unused land) and encouraging social enterprises that work with communities on food issues.

Government needs to work in partnership with the food chain to bring about change

- ES.38** The Government will continue to work with the food industry on advancing the Healthy Food Code of Good Practice set out earlier this year in the Government's strategy to tackle the problems of excess weight and obesity in England (*Healthy Weight, Healthy Lives*). It will look at how it can work with retailers and manufacturers to ensure that

barriers to achieving the 5 A DAY target for fruit and vegetables are addressed, looking at accessibility, product placement and the range of products that can count as a portion of fruit or vegetables.

- ES.39** Together with industry, the Government will develop a 'whole food chain approach' for identifying the most important and high-risk food safety hazards in the food supply chain, and the points at which they can be best controlled. This will consider risk from all sources of food safety hazards, not just food-borne disease/microbial hazards, and will focus interventions at the highest risk points in the food chain.
- ES.40** The framework put forward in the Stern Review²⁰ – carbon pricing, new technologies and tackling market barriers – needs to be applied to the full food chain, here in the UK and elsewhere. As this happens, the non-CO₂ GHG emissions associated with farming will receive more attention from policy-makers than they have had to date. There are new opportunities for farm businesses to exploit – such as generation of renewable energy from farm waste. But a smarter system for calculating on-farm GHG emissions is needed if we are to be able to recognise and reward abatement. The Government has commissioned research to deliver such a system for the UK, and will work with international partners to learn from their approaches. The Government will also continue its leadership role on climate change in Europe by promoting the part that agriculture has to play in both the mitigation of, and adaptation to, climate change.

²⁰ HM Treasury (2006) *Stern Review on the Economics of Climate Change*

- ES.41** Maintaining global food security while responding to climate change is a critical collective challenge for the 21st century. The Government will continue its global leadership on food security and climate change through its Chief Scientific Adviser commissioning a major new project to examine future global food systems. The project will explore how future systems might evolve in a world adapting to and mitigating climate change. The project will be international in scope, and will consider the implications for policy in the UK.
- ES.42** Pressures on the food system today also need attention. The Government will commission an analysis of how the EU's regulations concerning genetically modified (GM) material are interacting with global trends in animal feed production and assess any potential impacts on UK livestock farming. The potential impacts of market trends for the integrity of the regulatory system, and thus for consumer confidence, will also be examined. The UK will continue to lobby for the EU to reach quicker decisions, whether positive or negative, on proposed GM products.
- ES.43** A new strategy for packaging waste in England will be developed, set within the framework provided by the Waste Strategy for England. The strategy will encourage more prevention of packaging at source. It will aim to get incentives better aligned along the food chain to encourage more prevention of packaging and more re-use and recycling. It will also aim to improve information flows from manufacturers through retailers, consumers and local authorities to re-processors.
- ES.44** Alongside the development of this strategy the Government will open discussions with food chain businesses on a new voluntary agreement to achieve a demanding net packaging reduction target for 2012 and on a new objective to encourage the use of recycled material. It will also negotiate Courtauld Commitment-type agreements for other business sectors. It will consult with Devolved Administrations about these proposals and their possible extension beyond England.
- ES.45** There is huge potential for households to reduce food waste – saving money and helping the environment. The Government will work with industry to set a target for substantial cuts in food waste in homes and business by 2012 and continue to support consumer-facing campaigns. Again, Devolved Administrations will be consulted about possible participation.
- Government should lead by example and commit itself to ensuring that food served by the public sector is healthier, more sustainably sourced, and more efficiently procured**
- ES.46** The public sector should be leading by example in the delivery of healthier, more environmentally sustainable food. Progress has been made in many areas but there is more to do. In England a promise of nutritious, more environmentally sustainable food will be delivered through a new 'Healthier Food Mark' that will show where healthier, more sustainable food is available. The standards behind the Mark will provide a lever to drive out the inefficiencies that

currently hinder cost-effective public food procurement, so that the money spent yields better food²¹.

ES.47 Adoption of the standards required to achieve the Healthier Food Mark will initially be voluntary. But, subject to experience, financial impact, further consultation and development of proposals, the Government will look at making compliance compulsory for central government departments and their agencies, and prisons, by 2012. And as the scheme progresses, all public bodies in England will eventually be encouraged to sign up.

New arrangements are needed to ensure the successful delivery of a more integrated approach to food policy

ES.48 The Cabinet Office will chair a new cross-Whitehall Food Strategy Task Force that will coordinate work across government on food issues (including the Government's medium-term response to developments in global food markets) and ensure progress in delivering the measures in this report. Sub-groups of the Task Force will take forward individual key actions, each chaired by a lead department. The Task Force will report annually to the Prime Minister. The reports will be published.

ES.49 The Department of Health and the FSA will publish a new statement of roles and responsibilities linked to the Healthy Food Code of Good Practice, to help stakeholders understand more clearly their respective functions and areas of leadership.

ES.50 To give added impetus to efforts to join up policy in this area, the Government will consider how best to incentivise efforts to reduce the public health and environmental harms associated with food and to support the food economy within the performance management framework for the next Spending Review.

ES.51 Finally, a Joint Research Strategy for Food will be prepared to ensure better coordination of departments' food-related research spending. The strategy will identify priorities for research, and undertake monitoring and dissemination arrangements. The strategy will define a 'virtual' research programme that cuts across the work of those departments, and will link to Research Councils and other funders.

ES.52 **The new framework for food policy set out here is intended to ensure that the Government is equipped to play its part in the continuing transformation of the UK's food system. But it is the decisions of consumers and industry, and the values and preferences of society at large, that will determine how fast and how far that process moves. A collective effort is needed to build a thriving food system that produces safe, low-impact food and healthy diets.**

²¹ In 2006, the National Audit Office estimated that inefficiencies in public food procurement were worth £224 million a year

1 Introduction

- The Prime Minister asked the Strategy Unit to take forward a project on food and food policy in the summer of 2007.
- The terms of reference for the project were: to review the main trends in food production and consumption in the UK; to analyse the implications of those trends for the economy, society and the environment (including analysing the main drivers of change); to assess the robustness of the current policy framework for food; and to review what should be the objectives of future food strategy and the measures needed to achieve them.
- This report is the final report of that project. It sets out a series of agreed actions – all of which will be taken forward by the Government. Together, they seek to provide a coherent policy framework for addressing the challenges posed by the production and consumption of food in the UK in the future.

- 1 This introductory chapter:
 - provides an overview of the key themes addressed by this report;
 - outlines the place and role of government in the UK food system; and
 - describes the context and purpose of this report and the project from which it has emerged.

1.1 Britain's relationship with its food is changing

- 2 Today's consumers are better informed and more demanding about the food they eat than previous generations. The changes can be seen in the variety of products on supermarket shelves, in the greater diversity of places to eat out, in the huge growth in the number of farmers' markets, in the popularity of TV food programmes and in the media's enthusiastic coverage of food issues.
- 3 In the short period that work on this report was under way, sales of free-range eggs overtook laying-cage and barn eggs, and now account for more than half of the retail market value. Two chefs sparked a national conversation about animal welfare and spurred a transformation in the market for chicken. Press reports suggested that sales of vegetable seeds had overtaken those of flowers as more people turn to growing their own. And attitudes are turning against that totem of casual consumerism, the free plastic bag.
- 4 The changes of the past decade have taken place against a background of food absorbing an ever-smaller share of household expenditure. However, recent commodity price rises are a reminder that this trend cannot be taken for granted. The impacts of commodity price changes are feeding through the supply chain and on to consumers. Having fallen for a decade or more in real terms, recent food price increases are now adding to families' cost of living. Here in the UK, as elsewhere, this hits the poorest hardest because proportionately

more of their expenditure goes on food. The impacts of increasing food prices on farming are mixed: cereal producers are seeing increased revenues, but increasing input costs present real challenges to livestock farmers.

- 5 In the developing world, food price rises threaten to throw millions of people back into poverty and increase the number going hungry. United Nations estimates were that around 850 million people faced hunger each day even before prices rose. The UK Government is playing a prominent role in the international response – supporting short-term aid, funding longer-term development assistance, and in making the case for lowering the tariff and other barriers to international trade in food²².
- 6 The food chain has been reshaped to service our appetite for ever more diverse, exotic and season-defying foods. Spending on food and soft drinks is worth around £129 billion a year. The food and drink supply chain sustains nearly 4 million jobs in the UK. It includes some of Britain's biggest and best known retailers, an extremely diverse catering and restaurant sector, the country's largest manufacturing sector, distributors and producers – farmers and fishermen – both here and overseas.
- 7 A reconnection is in progress – to where our food comes from, how it is produced, and its impacts on ourselves and on the planet. The kind of changes called for by the

Government's 2002 Policy Commission on the Future of Farming and Food²³, are gradually happening. The process is not universal, it is far from complete, but it is real and has momentum.

- 8 This is not before time. Diet influences the risk of developing coronary heart disease and cancer. Better diets could see many thousands of premature deaths avoided each year. There is a looming obesity epidemic that threatens to put our health and care services under severe strain in the decades ahead, and levy a heavy toll on collective well-being and on the economy. Already the health effects of poor diet cost the NHS billions of pounds a year²⁴.
- 9 The costs to the environment that arise as a by-product of feeding the UK are becoming more apparent. Progress has been made in many areas, but much more will be needed before the food system is fit for a place in the low-carbon, resource-light economy that lies just over the horizon. Almost a fifth of the UK's greenhouse gas (GHG) emissions come from the food chain²⁵ (compared with 25% from electricity, gas and water supply²⁶), with farming accounting for the largest share. The biodiversity of the countryside suffered from the intensification of agriculture in the latter part of the 20th century. And a sizeable share of the food sold in supermarkets (perhaps as much as 30%) is grown, processed, packaged, distributed, sold and taken home only to be thrown away uneaten. Much of it never leaves

22 HM Treasury (2008) *Global Commodities: A long-term vision for stable, secure and sustainable global markets*, www.hm-treasury.gov.uk/documents/international_issues/global_challenges/int_global_commodities.cfm

23 Policy Commission on the Future of Farming and Food (2002) *Farming and Food: A sustainable future*

24 One study estimated that food-related ill health cost the NHS £6 billion in 2002 – 9% of NHS costs. Pro-rated to 2007, this would be £7.7 billion (Rayner M and Scarborough P (2005) The burden of food related ill health in the UK, *Journal of Epidemiology and Community Health*, 59, 1054–7). Another study estimated that malnutrition costs public services at least £7.3 billion, including hospital treatment costs of £3.8 billion and long-term care of £2.6 billion (British Association for Parenteral and Enteral Nutrition (2005) *The Cost of Disease-related Malnutrition in the UK and Economic Considerations for the Use of Oral Nutritional Supplements in Adults*)

25 Department for Environment, Food and Rural Affairs (Defra) (2007) *The Environment in Your Pocket* (note that the figure for food chain emissions includes emissions embedded in food production, processing, transportation and consumption)

26 Office for National Statistics (ONS) (2007) *Environmental Accounts, Spring 2007*

its packaging. In an ever more resource-constrained world, these features of the food system are, in every sense, unsustainable.

- 10 Despite encouraging evidence of Britain's new interest in food, on many issues there is still a significant gap between what people say that they believe, as citizens, should be done and how they behave as consumers. And there are limits to the number of trade-offs and dilemmas consumers are prepared to entertain on the weekly dash around the supermarket or when grabbing a working lunch or eating out with friends and family. Surveys suggest that many expect retailers, manufacturers or the Government to act on their behalf and to 'edit' problems out of the system rather than ask them to choose.
- 11 And as the evidence base grows, it is also increasingly clear that many of the issues are complex, in relation to health and especially the environment. There are cases where popular debate and evidence are in different places. For example, the kind of food we buy can have a bigger impact on GHG emissions than how far the food has travelled. More fundamentally, the global challenges of climate change and increasing resource scarcity raise difficult questions about the very concept of 'sustainable' food, at least under the food production systems we have today. It is not yet clear what farming systems, or diets, are going to be able to sustain a much larger, wealthier human population with the resource constraints of the century ahead, including very much lower GHG emissions.

Government has a leadership role to play in a food system that is becoming more complex and more globalised

- 12 The UK has a vibrant and innovative food economy which is constantly evolving to meet the changing demands of consumers. The average supermarket sells over 40,000 product lines (food and non-food). There is year-round provision of foods that were once only seasonally available and of foods previously seen as exotic luxuries.
- 13 Major food producers set quality standards that impact on processes and procedures throughout the supply chain. Assurance schemes (such as the Red Tractor Scheme) set animal welfare and farm management standards that go beyond the legal minimum.
- 14 Non-governmental organisations (NGOs) have an important influence on the food system. By campaigning on issues such as health, environmental degradation, animal welfare and living standards in developing countries, they help to keep issues in the public eye, and on the agendas of business and governments. They too can set standards for food, standards that are signalled to consumers by on-product logos that are gaining increasing recognition in the market – for example, the Marine Stewardship Council's 'blue label', the Royal Society for the Prevention of Cruelty to Animals' 'Freedom Food' label and the FAIRTRADE mark.
- 15 Over 90% of all legislation on food safety and standards which applies in the UK is set at European level. The UK gains the benefits of

a single market for food and European Union (EU)-wide scrutiny of product safety. With this comes acceptance of shared scientific assessment of risks – checks and balances constrain member states' freedom to restrict use of substances unilaterally unless they are demonstrably unsafe. Local authorities are responsible for most of the monitoring and enforcement.

- 16 Increased international trade in commodities and food products has led to the development of agreements to govern trade to internationally recognised guidelines, codes and standards. Global governance operates through multilateral institutions such as the World Trade Organization, via agreements (e.g. the Agreement on Agriculture) and the Food and Agriculture Organization (FAO)/World Health Organization (WHO) Codex Alimentarius²⁷, which develops food standards, guidelines and codes of practice which are now referred to in international law in the case of trade disputes.
- 17 Within the UK, responsibility for many policies that impact on food, such as agriculture, economic development, health, enforcement of food standards and public sector food, is devolved – to the Scottish Executive, the Welsh Assembly Government, and the Northern Ireland Assembly. Westminster is responsible for these policy areas in England, as well as having UK-wide reserved power on issues such as fiscal matters, competition and advertising, and negotiating at EU level.
- 18 In this complex system of controls and influence, there are relatively few areas where the national government has a direct

regulatory role. But it continues to have an important role in the food system – representing society's interests and concerns, tackling market failures and establishing stable frameworks with clear goals, within which investments can be made with confidence. Much of this role involves engaging and influencing to catalyse changes in behaviour and in systems. It often means working in partnership for a more sustainable food system with communities, industry, NGOs, the EU, Devolved Administrations and others. It also means engaging at an international level with global institutions, such as WHO.

The evidence suggests that there is much more to be done to address the public health and environmental issues arising from food consumption, and a need to do so in a joined-up way

- 19 The food policy landscape can often seem complex and confused, and beset by claim and counter-claim. But there is a remarkable consensus about where we need to go. There is, on certain issues, a lively, healthy debate about how we get there. In some areas, there is a need for more evidence and information to guide us on our journey. The Government will continue to have a key role in leading the way.
- 20 In the UK, many of the pieces of the policy framework are already in place. There are sophisticated systems for ensuring the safety of food. The Government is legislating to put five-year carbon budgets in place which will set a trajectory for the reduction of carbon dioxide emissions out to 2020 and beyond.

²⁷ www.codexalimentarius.net

There are clear, long-term strategies for tackling issues such as obesity.

- 21** But the evidence strongly suggests that there is more to be done to solve the public health and environmental challenges we face. And the various elements of food-related policy need to be melded together into a more cohesive whole – from the high-level vision to the practicalities of decision making and coordinated research. **The challenge is to build a system to meet the demand for safe, low environmental impact food and healthy diets.**
- 22 The Government cannot do this alone.** It needs to work collaboratively with those in the food chain to effect change. This report identifies a number of ways in which the Government, working with others, can support consumers in the choices they make, reduce the health and environmental impacts of the food system and help to ensure the continued success of the many businesses in the food chain.
- 23** The Government's leadership role should begin in the public sector. The food on offer in places such as hospitals and in the workplaces of millions of public sector workers has a direct effect on people's diets, on the environment and on the opportunities available to the supply chain. It also sends important signals about commitment to the issues addressed in the Government's wider strategies for society at large. Progress has been made in many areas, but there is much more to do. This report makes proposals that will promote healthier food across much of the public sector in England.

1.2 The context and purpose of this report

- 24** Against this backdrop, the Prime Minister asked the Strategy Unit in the summer of 2007 to take forward a project on food, working with the Department for Environment, Food and Rural Affairs, the Department of Health, the Food Standards Agency and other departments. The terms of reference required the Strategy Unit to:
- review the main trends in the production and consumption of food in the UK;
 - analyse the implications of those trends for the wider economy, society (including public health) and the environment – including an analysis of the main drivers of change (such as public attitudes);
 - assess the robustness of the current policy framework for food in the face of current and future trends and the various drivers of change; and
 - review what should be the objectives of future food strategy and identify what (if any) changes or measures might be needed to achieve them.
- 25** From the start, the project aimed to adopt a system-wide view and highlight citizen and consumer interests in food. The Strategy Unit has explored the positive and the negative dimensions of the UK's food system today, and collected views on the challenges ahead. Given the breadth of the project, its timescale and the complexity of the issues, choices have inevitably had to be made about where effort and attention should be focused.

- 26 This document is the project's final report. It is intended to inform future UK Government strategies and actions – setting out a vision for the food system, identifying clear objectives for future food strategy and identifying the key measures needed to help achieve them. It outlines a number of specific actions. Some can be taken forward immediately; others require further research and policy development; and some will need to be tackled in the UK and overseas over several decades.

The Government has agreed to all the proposals set out in this report and will take them forward with immediate effect.

The project has focused on food issues in the UK

- 27 The project has focused on the challenges posed by food production and consumption in the UK, though in a world of ever more integrated markets, such a distinction has its limits. This report retains the project's focus on the UK but highlights the global context and some of the long-term questions that it raises.
- 28 Around the world, food is making headlines again but, for the first time in many years, it is high food prices that are the cause. The UK Government is playing a full role in the international response – helping to put food on the international political agenda at the highest level; working with international partners; providing immediate aid and long-term support to those, especially in developing countries, who need it; and making the case for free trade in agricultural products and food.

The work is intended to complement other government strategies

- 29 The Government is working with the food industry and other stakeholders on a number of important strategies that relate to food. Earlier this year, the Government published *Healthy Weight, Healthy Lives*, its strategy for tackling obesity in England. The implementation of the Government's *Sustainable Farming and Food Strategy* continues. In England, there has been progress on the industry-led *Food Industry Sustainability Strategy*, under which targets have been set to reduce the overall environmental impacts of waste, transport, water use and energy in the food chain. The Food Standards Agency's *Strategic Plan for 2007–2010* sets out its agenda for improving food safety and addressing the nutritional problems the UK faces. The Department for Business, Enterprise and Regulatory Reform is updating the UK's *Manufacturing Strategy* for publication later in 2008.
- 30 Across the UK, the Devolved Administrations have also given an increasingly prominent role to food policy, varying from producer-focused sector development plans to strategies that seek to integrate economic, health and social objectives. Scottish Ministers launched a national discussion leading up to the release of a national food policy for Scotland²⁸, Wales has developed the *Quality of Food Strategy*²⁹ and Northern Ireland has published a foresight report – *Vision Twenty:Twenty*³⁰ – which sets out a vision for its food sector.
- 31 This report is not intended to replicate or interfere with any of these strategies or the

28 www.scotland.gov.uk/Topics/Business-Industry/Food-Industry/Discussion

29 <http://new.wales.gov.uk/topics/health/improvement/food/foodhealth/qualityfood/action/?lang=en>

30 Food Strategy Implementation Partnership (2006) *Vision Twenty:Twenty*

partnerships through which they are being delivered. Instead, it looks across the food system to examine when and where the coherence of current efforts could be improved through better links across work in different areas. A number of the proposals set out here are intended to get different parts of government working together more effectively, to strengthen the way policy is delivered, and to fill gaps where they exist. Some proposals in this report are focused on England alone; others have a pan-UK, European or even global relevance.

- 32** The key actions in the report are reserved issues or apply to England only; however, the Government will continue to work closely with the Devolved Administrations on topics of common interest as the policy framework set out here is developed.

The Strategy Unit and its partners would like to thank the many people and organisations who have contributed to this report

- 33** The Strategy Unit and its partner departments and agencies have received advice and input from many organisations and individuals across the food system in the course of work on this report, for which they are very grateful. Participants in workshops organised by the Government's Horizon Scanning Centre kindly gave their time to help develop ideas on the possible future development of the food system.
- 34** We appreciate too the contributions from the Devolved Administrations in Scotland, Wales and Northern Ireland. We also wish to thank

the panel of experts who acted as a sounding board to the project team – Sir Don Curry, Dr Susan Jebb, Professor Tim Lang, Dr David Barling, Chris Pomfret, Dr Tom MacMillan, Ed Mayo and Martyn Evans.

- 35** The rest of the report is structured as follows:
- Chapter 2 summarises the key trends and challenges in the UK's food system and the wider global context within which it exists.
 - Chapter 3 proposes a new policy framework for food.
 - Chapter 4 looks at how the Government can better support consumers.
 - Chapter 5 identifies specific areas where the Government can catalyse change by working with businesses in the food chain and by developing the policy framework within which they operate.
 - Chapter 6 sets out proposals for the Government to take steps to promise healthier, more environmentally sustainable food in the public sector in England.
 - Chapter 7 provides a comprehensive action plan for implementation of the proposals, clearly setting out who is responsible for each proposal and to what timescale.
 - Annex A gives details of those who have worked on and contributed to this project.
 - Annex B acknowledges the input and advice received from stakeholders.

2 Trends and challenges

- Diet and attitudes to food have changed markedly in the past two decades in the UK – and will continue to do so. Demand for better quality, more varied and more exotic types of food has risen. People aspire to eat both more healthily and to buy food that has a reduced impact on the environment. But consumers also want affordability and convenience, and are eating outside of the home more often.
- Over the longer term, food prices have fallen relative to incomes and to the prices of other goods and services, though the less well-off continue to devote a significantly higher proportion of their income to buying food than the better off.
- The food and drink supply chain is a major part of the UK economy, accounting for 7% of GDP and employing 3.7 million people in everything from food retailing, restaurants and cafés to farming and fishing. Food and soft drink manufacturing is the UK's single largest manufacturing sector.
- The food system faces a series of challenges:
 - There is increasing appreciation of the importance of a good diet for health. An estimated 70,000 premature deaths in the UK could be avoided each year if diets matched nutritional guidelines in terms of consumption of more fruit and vegetables and reduced consumption of salt, saturated fat and added sugar.
 - The food we eat is safer than it has ever been but continuing vigilance is needed to minimise food contamination.
 - The food chain has huge environmental impacts. Around 18% of UK greenhouse gas (GHG) emissions are related to food production and consumption.
 - Recent increases in global commodity prices have brought to an end the long-term decline in the price of food and few expect food prices to return to past lows. Rising global food prices have profound consequences for people in developing countries as well as for the UK, and have reignited concerns about food security.
- The UK Government has acted promptly to address the challenges posed by increases in global food prices. This chapter summarises the action the Government has taken in this respect. It also lays the groundwork for measures set out in later chapters to address the challenges relating to food and health and to food and the environment.

- 1 The purpose of this chapter is to provide an overview of the main trends and challenges in the UK food system. It identifies the links between diet and health, diet and the environment, food safety and the vitality of the food economy as key issues.
- 2 The chapter draws selectively on the more detailed analysis presented in a Strategy Unit discussion paper published early in 2008³¹. That paper provides an overview of consumption trends, changes in the food chain and the evolution of global markets. It also provides more detail than is given here on links between food and health, food and the environment, and food safety.

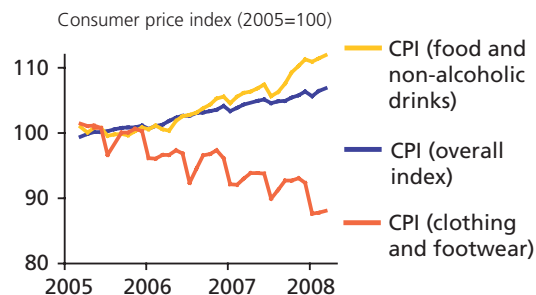
2.1 Trends and challenges in the UK food system

Changes in British society are revealed by our food and food culture

- 3 Britain's food culture is changing in step with the lifestyles and interests of a more affluent society. Its evolution is influenced by more foreign travel, people re-embracing cooking as a hobby, and by media and opinion formers raising awareness and fuelling debate on issues such as animal welfare, food production and the importance of healthy eating. Consumers are increasingly making statements of personal principles when shopping by choosing to buy products that are organic, fairly traded, free range or 'local'.
- 4 Food choices are influenced by what is affordable, but for many people getting value

for money is no longer about paying the lowest price regardless of quality. Consumers have become more sophisticated and diverse in their food interests, and more people are now prepared to pay a premium for better food. The rapid growth in sales through farmers' markets, farm shops, food fairs and direct-supply box schemes is one expression of this changing scene. These outlets offer local and seasonal produce and an opportunity for consumers and producers to engage directly with each other. In parallel, there has been growth in sales of products that offer solutions for time-poor consumers looking for nutritious, easy-to-prepare, convenient foods.

Figure 2.1: Over the past two years, the consumer price index (CPI) for food has increased faster than the overall index



- 5 These trends, which have accelerated in the last few years, coincided with a period in which food prices were falling in real terms and average real incomes were rising. More recently, food prices have been increasing more rapidly than prices generally (Figure 2.1³²). The impact of increases in food commodity prices and increased volatility in global markets has gradually fed through the supply chain to consumers. Prices of some

31 Strategy Unit (2008) *Food: An analysis of the issues*, www.cabinetoffice.gov.uk/strategy/work_areas/food_policy.aspx

32 Office for National Statistics (ONS) (2005–08) *Focus on Consumer Price Indices*

basic foodstuffs such as eggs and milk have increased significantly. This impacts on the cost of living, and is felt especially hard by the poorest in society.

- 6 Higher prices will inevitably make it more difficult for some families to buy the foods they aspire to. Some of the trends documented in this report may therefore slow or stall. But the underpinning drivers remain strong and seem likely to reassert themselves once food prices settle. How long that might take cannot be known with certainty. A number of international agencies have projected that over the next few years food commodity prices will gradually decline from recent highs. They are not, however, expected to return to the lows seen over the last decade³³.

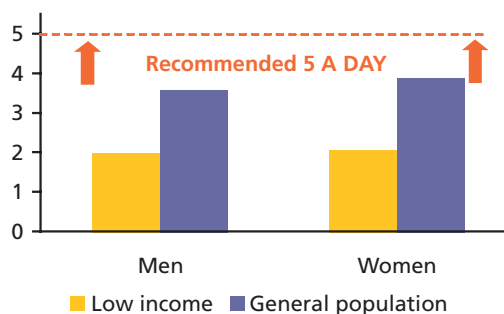
For our health, most of us do not need to eat more, but we do need to eat a better or more varied diet

- 7 There is a growing interest in healthier eating, with an increasing proportion of the UK population claiming that healthy eating is important to them³⁴. But dietary transition is a long-term process of cultural and behavioural change and consumption patterns still fall short of aspirations for a healthier diet. For example, many people are aware of the health benefits of fruit and vegetables but fail to reach the recommended target of five portions per day (Figure 2.2^{35,36}). Sales and consumption of fruit and vegetables are gradually increasing, but

huge quantities of fresh produce are also thrown away uneaten³⁷.

Figure 2.2: We are getting closer to the 5 A DAY target for fruit and vegetables

Average number of fruit and vegetable portions consumed per day, 2004



- 8 The average British adult eats too much salt, saturated fat and added sugars, and too little fruit, vegetables, whole grains and oily fish than is good for health^{38,39}. The average British child’s diet mirrors the average adult’s diet, but is proportionally higher in added sugars and saturated fat. Research by the Food Standards Agency (FSA) has shown that, for many foods, the types and quantities eaten by people on low incomes appear similar to those of the general population. The differences are mainly that those on low incomes are less likely to eat wholemeal bread and vegetables, and tend to drink more (non-diet) soft drinks and eat more processed meats, whole milk and sugar⁴⁰.
- 9 Poor diet increases the risk of becoming obese and developing life-threatening diseases such as cardiovascular disease and cancer – diseases

33 Organisation for Economic Co-operation and Development (OECD)/Food and Agriculture Organization (FAO) (2008) *Agricultural Outlook 2008–2017*

34 Food Standards Agency (FSA) *Consumer Attitudes to Food Standards*

35 FSA (2007) *Low Income Diet and Nutrition Survey*

36 Department of Health (2005) *Health Survey for England*

37 Waste and Resources Action Programme (WRAP) (2008) *The Food We Waste*

38 FSA (2001) *National Diet and Nutrition Survey*

39 Department of Health (2006) *Health Survey for England*

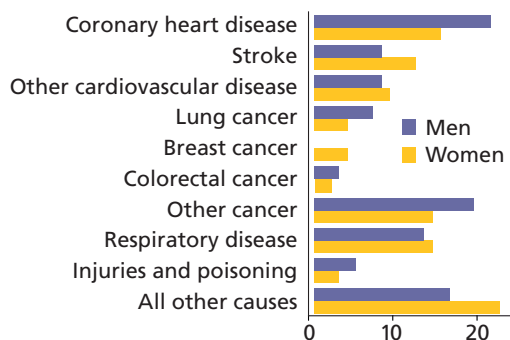
40 FSA (2007) *Low Income Diet and Nutrition Survey*

that are common causes of death in the UK (Figure 2.3⁴¹):

- Obesity has trebled in 20 years, and nearly a quarter of adults and about 10% of children in England are obese today. Projections show radical increases in the years ahead with 40% of the population being obese by 2025 and 60% by 2050⁴².
- Death rates from cardiovascular disease have fallen greatly since the early 1980s (by 62% in men and 45% in women, 25–84 years old). Sixty per cent of this reduction has been attributed to healthier lifestyles and a reduction in risk factors – principally smoking, but also better diets⁴³.
- There is a growing body of evidence suggesting that diet affects an individual's risk of contracting cancer⁴⁴. For example, evidence suggests that the risk of contracting colorectal (bowel) cancer is higher among adults who eat more red and processed meats, but that a diet high in fibre, fresh fruit and vegetables may decrease that risk⁴⁵.

Figure 2.3: Cardiovascular diseases and cancers together account for almost two-thirds of premature deaths in Britain

Percentage of all deaths by cause, UK, 2006



41 www.bhf.org.uk

42 Government Office for Science (2007) *Foresight, Tackling Obesities: Future Choices – Project Report*

43 Unal B, Critchley JA and Capewell S (2004) Explaining the decline in coronary heart disease mortality in England and Wales between 1981 and 2000, *Circulation*, 109, 1101–7

44 World Cancer Research Fund (2007) *Food, Nutrition, Physical Activity and the Prevention of Cancer: A global perspective*

45 Ibid

46 In quality-adjusted life years, Department of Health estimate

47 FSA (September 2007) *Quarterly Public Tracker*

48 FSA (2007) *Annual Report of the Chief Scientist 2006/07*

10 An estimated 70,000 premature deaths in the UK could be prevented each year if diets matched nutritional guidelines. This is more than 10% of current annual mortality. The health benefits of meeting the national nutritional guidelines have been estimated to be as high as £20 billion each year⁴⁶.

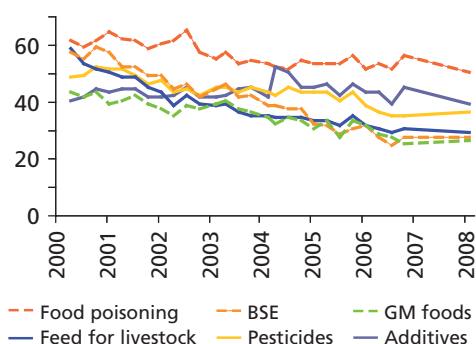
Incidence of food-borne illnesses is falling but maintaining food safety remains vital

11 The fact that food sold in the UK is safe to eat if properly cooked is something people often take for granted today, but it is by no means a given. The problems associated with *Salmonella* in eggs in 1989 showed how rapidly public confidence can be lost. Those events, and the outbreak of bovine spongiform encephalopathy (BSE) in cattle – which peaked in 1992 – showed the potential for severe economic consequences for the industry.

12 Public concern about key elements of food safety has decreased over the past six years (Figure 2.4⁴⁷) while confidence in the institutions protecting the public's health has increased. There was a 19.2% cut in the number of reported cases of food-borne illnesses between 2000 and 2005. The benefits have been estimated at £750 million over the five-year period⁴⁸.

Figure 2.4: Public concern with a range of issues, from pesticides and additives to BSE and GM foods, has declined since 2001

Percentage mentioning concern with the issue



A continued focus on safety and traceability is essential, especially as international supply chains bring foods to the UK from further afield. Evidence shows that the majority of food alerts are prompted by food imported from outside the European Union (EU).

- 15 Improving food safety means maintaining vigilance on contamination and continual improvement of food hygiene practices, from the farm to the home, along these complex and lengthening supply chains. Diseases that could potentially spread from livestock to people (e.g. avian influenza) are a matter of concern and require ongoing surveillance.

- 13 Though it is less of a problem than in the past, food poisoning is still a significant issue. Most food poisoning is due to microbiological contamination (e.g. chicken contaminated with *Campylobacter* bacteria) rather than chemical contamination (e.g. harmful dyes or environmental contaminants). As most food poisoning events go unreported, determining the scale of the problem with precision is difficult. The Health Protection Agency (2006) estimated that there were 765,000 cases of food-related illness in the UK in 2005, of which 17,300 resulted in hospitalisation and 470 in death⁴⁹.

- 14 The composition of our food is tightly regulated, and examples of gross contamination or adulteration of foods with chemicals are now rare. But reducing microbiological contamination of certain foods, particularly poultry, remains a real challenge.

The most significant environmental impacts in the food chain arise from growing and producing food, not retail operations or consumer actions

- 16 The food chain's environmental impacts include nationally significant contributions to UK GHG emissions – 18% of the total (see Figure 2.5⁵⁰) compared with 26% for all electricity, gas and water supply, and 14% for all transport and communication⁵¹; waste packaging, food and other material; water pollution; and the loss of habitats and biodiversity. An EU study estimated that food accounts for up to 31% of the GHG emissions associated with a typical European household's consumption⁵².

49 Ibid

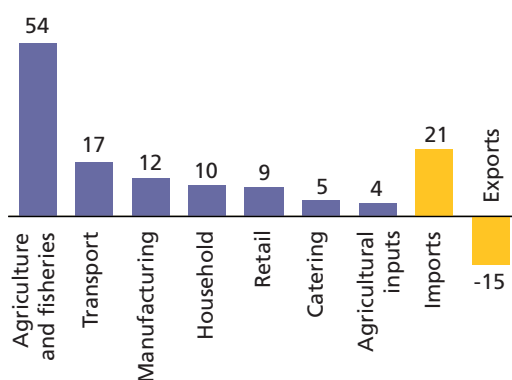
50 Department for Environment, Food and Rural Affairs (Defra) (2007) *The Environment in Your Pocket* (note that the figure for food chain emissions includes emissions embedded in food production, processing, transportation and consumption)

51 ONS (2007) *Environmental Accounts, Spring 2007*

52 Institute for Prospective Technological Studies/European Science and Technology Observatory (2005) *Environmental Impacts of Products: Analysis of the life-cycle environmental impacts related to the final consumption of the EU-25*

Figure 2.5: The food chain contributes 18% of total UK GHG emissions

Estimated emissions from different parts of the food chain, million tonnes CO₂ equivalent



17 The environmental impacts of the food chain are concentrated in the early stages (on farms and in food processing), but the impacts of the retail sector and consumers are also significant:

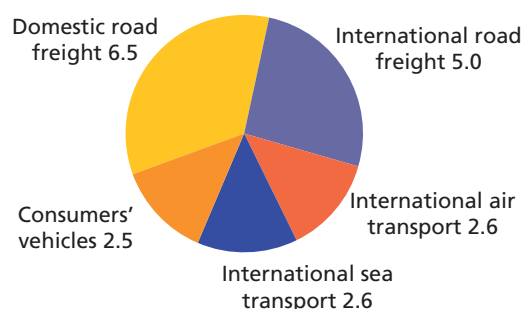
- The impacts of food production depend on the type of food and where that production is located. They include GHG emissions from agriculture, food processing and manufacturing operations; water pollution; and waste.
- Food retail operations consume energy and produce waste, and are dependent on a logistics system that has its own, significant, impacts.
- Environmental impacts also arise directly from consumer action, such as transport emissions from driving to shop for food, energy consumption from storing and cooking food, and impacts from the food that is thrown away uneaten.

Although the amount of food travelling by air is increasing, the biggest climate impact from moving food is still road transport – here and overseas

18 Food is travelling an increasing distance to get to our plates because of consumer demand for non-seasonal and non-indigenous foods, as well as the complexity of supply chains. The transportation of food generates the equivalent of 19 million tonnes of carbon dioxide (CO₂) a year, with road freight being the largest contributor (Figure 2.6⁵³). It accounts for a third of all the 20.6 million tonnes of oil used in the UK food chain each year⁵⁴. Food transport accounts for 25% of UK heavy goods vehicle movements, generating substantial congestion, accident and infrastructure costs (Figure 2.7⁵⁵).

Figure 2.6: The transportation of food generates the equivalent of 19 million tonnes of CO₂ a year, with road freight being the largest contributor

Transport emissions due to the food chain, million tonnes of CO₂ equivalent per year



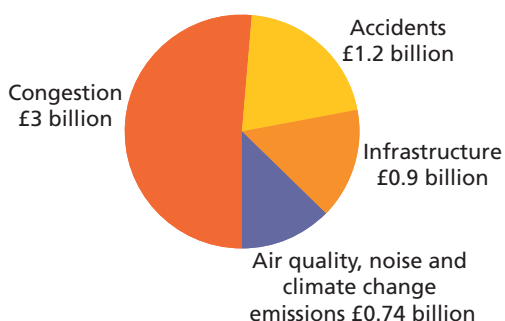
⁵³ Defra (2007) *Updated External Costs of Food Transport Miles*

⁵⁴ Defra (2007) *Food Chain Energy Briefing*

⁵⁵ AEA Technology (2005) *The Validity of Food Miles as an Indicator of Sustainable Development*, Defra

Figure 2.7: The external costs to society of food transport extend well beyond the cost of its GHG emissions

Food-related transport costs



19 Air freight is the fastest-growing mode of transporting food. It accounts for only 1% of food tonne kilometres and 0.1% of vehicle kilometres but 11% of food transport emissions (on a CO₂-equivalent basis)⁵⁶. From 2011, flights within, entering and leaving the EU will be covered by the EU Emissions Trading Scheme, putting EU aviation's CO₂ emissions under a cap for the first time.

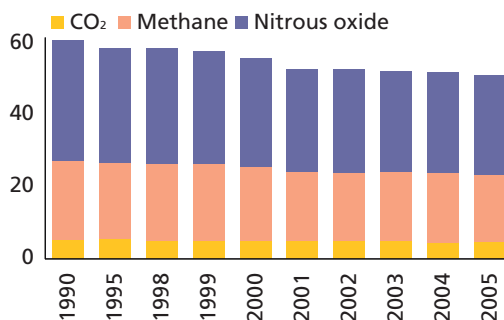
Farming is the largest single source of greenhouse gas emissions in the food chain

20 Agriculture is an important part of the rural economy. It has created the rural landscape that we recognise and value. But agriculture also contributes around 7% of the UK's total GHG emissions, is responsible for 37% of the UK's total methane emissions, and for 67% of the UK's total nitrous oxide emissions.

21 Overall GHG emissions from agriculture are dropping (Figure 2.8⁵⁷), but methane and nitrous oxide emissions present a major challenge for the future.

Figure 2.8: UK methane emissions have dropped 52% since 1990, but have only fallen 19% in agriculture over the same period

Agriculture emissions, million tonnes of CO₂ equivalent



Most global fish stocks are being exploited up to, or beyond, what is sustainable, but there are some examples of how better management practices can deliver sustainable supplies

22 Global fish stocks are under serious threat. The United Nations' Food and Agriculture Organization estimates that 75% of the world's fisheries are fully exploited, over-exploited or severely depleted. There are early but encouraging signs of recovery in certain North Sea stocks. Sustainable management practices are now being applied to an increasing number of fisheries, and getting recognition through organisations such as the Marine Stewardship Council.

⁵⁶ Ibid

⁵⁷ AEA Technology (2006) *UK Greenhouse Gas Inventory 1990 to 2005: Annual Report for submission under the Framework Convention on Climate Change*, Defra

Behind the warm glow of 'sustainable' and 'local' food propositions lies the reality of a complex world in which there are few simple answers or universal solutions

- 23 The increasing demand for 'local food' has multiple motivations, including wanting to support local food producers, a growing interest in provenance and its associations with quality, and in some instances a perception of lower environmental impact. The local food movement can play a part in reconnecting consumers with food producers, providing new market opportunities for farmers and small-scale food manufacturers, strengthening social capital within communities, and providing a focus for local economic development.
- 24 But the environmental case for 'local' is less clear. **'Food miles' are a poor indicator of the environmental impact of food products**⁵⁸ and small-scale production is not necessarily resource-efficient or low-impact. Evidence suggests that at some times during the year, transporting produce from other countries may have a lower environmental impact than heating or refrigerating produce grown in Britain⁵⁹. For consumers, driving six and a half miles to a shop to buy food emits more carbon than flying a pack of green beans from Kenya to the UK⁶⁰. And there are social equity arguments for imports as well as more local food – UK demand for fresh produce grown in Africa supports over 700,000 workers and their dependants⁶¹.
- 25 **There are hot spots of environmental impact within the typical diet, the impact of which could be reduced by selecting, when possible, foods that are locally in season.** But the picture is far from clear. For example:
- the least GHG-intensive fruit and vegetables are field grown, in season, in the UK without additional heating or protection. Energy used to grow fruit and vegetables in heated greenhouses or in other spaces (such as those used for growing mushrooms) accounts for 26% of the UK agricultural sector's total energy use (more than cereal production)⁶². It is estimated that refrigeration associated with the food we eat contributes 3–3.5% of the UK's GHG emissions⁶³; and
 - growing tomatoes in hothouses in the UK can use 10 times as much energy, and emit nearly four times as much CO₂, as producing the same quantity of tomatoes in unheated polytunnels in Spain and transporting them by road to the UK. But UK tomatoes are often grown using fewer pesticides and closed irrigation systems to minimise the release of excess nutrients to the environment⁶⁴. The types of tomatoes grown in the UK also tend to be higher-value cherry or vine tomatoes rather than the classic round type imported from Spain⁶⁵.
- 26 The environmental impacts of the food system are all, ultimately, a consequence of consumption decisions. There is a growing

58 AEA Technology (2005) *The Validity of Food Miles as an Indicator of Sustainable Development*, Defra

59 Garnett T, Food Climate Research Network (2006) *Fruit and Vegetables and UK Greenhouse Gas Emissions: Exploring the relationship*

60 www.dfid.gov.uk/news/files/foodmiles

61 Natural Resources Institute (2006) *The Production of Fresh Produce in Africa for Export to the United Kingdom*

62 Warwick HRI (2007) *Direct Energy Use in Agriculture: Opportunities for reducing fossil fuel inputs*, AC0401 Final Report to Defra

63 Garnett T, Food Climate Research Network (2006) *Fruit and Vegetables and UK Greenhouse Gas Emissions: Exploring the relationship*

64 AEA Technology (2005) *The Validity of Food Miles as an Indicator of Sustainable Development*, Defra

65 Garnett T, Food Climate Research Network (2006) *Fruit and Vegetables and UK Greenhouse Gas Emissions: Exploring the relationship*

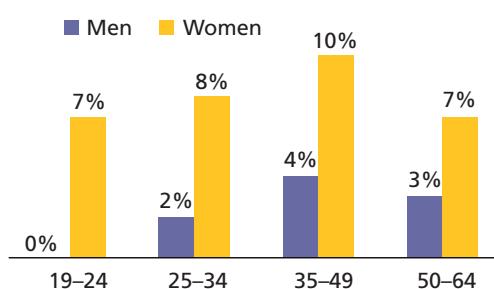
body of evidence showing that, in terms of the environmental impact of households' food consumption, **the composition of our diet is more important than how and where food items are produced**, as explained below.

Evidence on health and the balance of environmental analysis suggests that a healthy, low-impact diet would contain less meat and fewer dairy products than we typically eat today

27 Some meat and dairy products can be high in fat, particularly saturated fat. High levels of saturated fat in the diet can raise cholesterol levels and increase the risk of heart disease. Some studies have also linked higher consumption of red and processed meat to an increased risk of developing certain types of cancer. But meat and dairy products are important sources of dietary iron, calcium, zinc and other vitamins and minerals. Iron deficiency anaemia is one of the most common nutritional deficiencies in the UK, particularly in young children and women of child-bearing age (Figure 2.9⁶⁶).

Figure 2.9: On average, 8% of women and 3% of men are anaemic

Percentage of respondents with haemoglobin concentration below the threshold for anaemia, UK, 2004



28 Livestock farming sustains habitats crucial to biodiversity in the UK, and gives grassland an economic function. But direct emissions arising from the UK livestock sector accounted for 4.5% of total UK GHG emissions in 2005⁶⁷ (UK air transport contributes around 6%⁶⁸). Globally, it has been estimated that livestock farming might account for as much as 18% of GHG emissions, if associated land-use change is taken into account⁶⁹.

29 The relationship between GHG emissions and different livestock production systems is also complex. Evidence currently available suggests that, on a kilogram of product basis:

- Intensive poultry production is less GHG-intensive than organic or free-range (Figure 2.10)⁷⁰. This is because organic and free-range chickens take more time and require more feed to reach their slaughter

66 FSA (2004) *National Diet and Nutrition Survey*

67 House of Commons Written Answers for 2 February 2007,

www.parliament.the-stationery-office.co.uk/pa/cm200607/cmhansrd/cm070202/text/70202w0017.htm

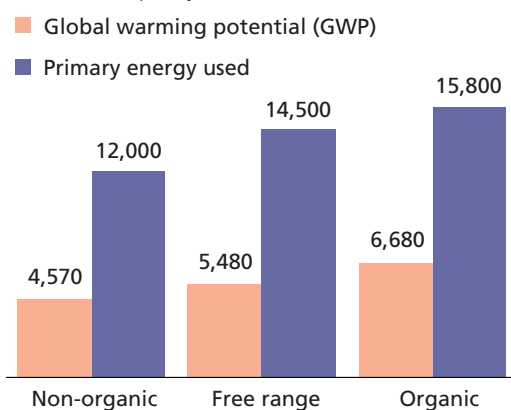
68 ONS (2007) *Environmental Accounts, Spring 2007*

69 FAO (2007) *Livestock's Long Shadow*

70 Williams AG, Audsley E and Sandars DL (2006) *Determining the Environmental Burdens and Resource Use in the Production of Agricultural and Horticultural Commodities*, Defra project report ISO205

Figure 2.10: Conventionally reared poultry has a lower global warming potential than either organic or free-range poultry

Global warming potential (GWP100, kg 100-year CO₂ equivalent) and energy used (megajoules) in producing 1 tonne of poultry meat



weight⁷¹, and because intensive units fit more chickens into a given space, reducing heating and lighting costs per bird⁷².

- Sheep and cattle have higher GHG impacts than pigs and poultry⁷³.
- The differences in environmental impacts between organic and conventional systems are not at all clear cut and may be overridden by differences between individual farm practices (e.g. manure management)⁷⁴. There is some evidence that organic sheep and pig meat

production uses less energy and has lower global warming potential than non-organic production⁷⁵ but that the reverse is true of beef⁷⁶.

- 30** If meat or dairy products were not produced, energy would be expended and GHGs emitted to produce substitutes for the foods, leather, wool, fertiliser and other products derived from animals⁷⁷.

2.2 Feeding Britain sustains a significant part of the economy – from retail and food services back down the supply chain to farming and fishing

- 31** The food chain economy encompasses several major service industries, the UK's largest manufacturing sector, farming and fishing. Food and drink supply accounts for 7% of UK national output⁷⁸. Spending on food and soft drinks is worth around £129 billion a year. When alcoholic drinks are included the total spending is around £172 billion, split almost equally between household expenditure (£90 billion) and catering services such as canteens and restaurants (£82 billion)⁷⁹.

71 University of Manchester, Manchester Business School (2006) *Environmental Impacts of Food Production and Consumption: A research report completed for the Department for Environment, Food and Rural Affairs by Manchester Business School*

72 Garnett T, Food Climate Research Network (2007) *Meat and Dairy Production and Consumption: Exploring the livestock sector's contribution to the UK's greenhouse gas emissions and assessing what less greenhouse gas intensive systems of production and consumption might look like*

73 Williams AG, Audsley E and Sandars DL (2006) *Determining the Environmental Burdens and Resource Use in the Production of Agricultural and Horticultural Commodities*

74 Garnett T, Food Climate Research Network (2007) *Meat and Dairy Production and Consumption*

75 Williams AG, Audsley E and Sandars DL (2006) *Determining the Environmental Burdens and Resource Use in the Production of Agricultural and Horticultural Commodities*

76 Ibid

77 Ibid

78 Defra/ONS (2008) *Annual Business Inquiry*

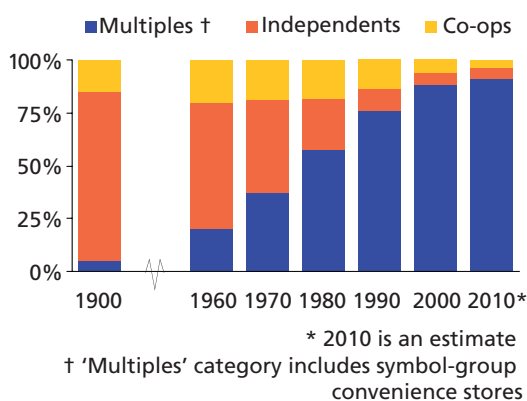
79 ONS (2007) *Consumer Trends Q4 2007*

Alongside the consolidation of mainstream food retail, there has been growth in online food shopping and new types of food market

32 In 2007, the UK had an estimated 59,200 food and drink retailers with over 99,000 outlets. But just four firms account for an estimated two-thirds of all food retail sales⁸⁰. The expansion of the multiple grocery chains is a long-term phenomenon (Figure 2.11⁸¹) driven by consumer demand for convenience, choice and a one-stop shopping experience. Size provides economies of scale which are fed back to consumers through lower prices.

Figure 2.11: Consolidation in the grocery market is a long-term phenomenon

UK value market share, 1900–2010



33 Competition among supermarkets creates forces that are transmitted down the grocery supply chain, putting pressure on processes and producers to ensure full availability of

products within stores, streamline distribution systems and extract efficiency savings in pursuit of lower prices. The consolidation trend has spread through the system as retailers seek to deal with fewer, larger suppliers and producers look for economies of scale.

34 Convenience stores have responded to the competitive pressure from large retailers by forming 'symbol groups', sharing common branding and economies of scale. Traditional street markets have continued to decline⁸².

35 In parallel, however, new ways for consumers to buy food have emerged. Many households now have the option of buying their food online and having it delivered to their door – whether from a supermarket or speciality food producers. Though still a small share of the overall market, online grocery sales (food and non-food) were estimated at £2.4 billion in 2007, up 30% in a year and growing six times faster than the overall grocery market⁸³.

36 And alongside the growth in large supermarket chains, the UK's resurgent food culture has helped to support the growth of farmers' markets and speciality food markets that provide producers with direct and alternative channels to consumers. There are now an estimated 550 farmers' markets in the UK, compared with just one in 1997⁸⁴. There are also around 4,000 farm shops. Turnover from direct selling by farmers through these methods, pick-your-own and box schemes is estimated to be around £2 billion a year⁸⁵.

80 Strategy Unit/Defra estimate

81 IGD (2004) *Grocery Retailing 2004*

82 Rhodes N (2005) *First National Survey of Retail Markets*, Retail Enterprise Network

83 www.igd.com/cir.asp?menuid=9&cirid=2512

84 National Farmers' Retail and Markets Association (FARMA), direct communication

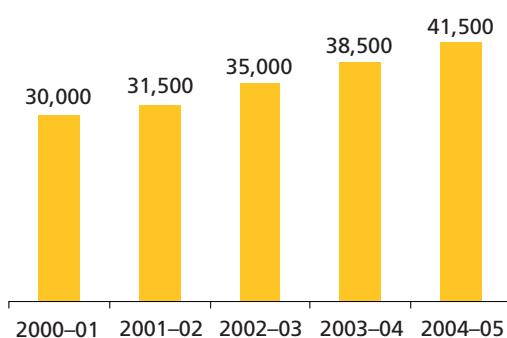
85 FARMA, direct communication

Product choice has increased

- 37** There has been a huge proliferation of products on offer to consumers (Figure 2.12⁸⁶). This is exemplified in the supermarkets by the emergence of product groups tuned to particular consumer interests – ‘healthier’, ‘premium’, ‘free from’, ‘organic’, ‘kids’, ‘value’ and others.

Figure 2.12: There has been a rapid increase in the number of food and non-food products that supermarkets offer to the consumer

Average number of product lines, including non-food products, in the typical ‘big four’ supermarkets



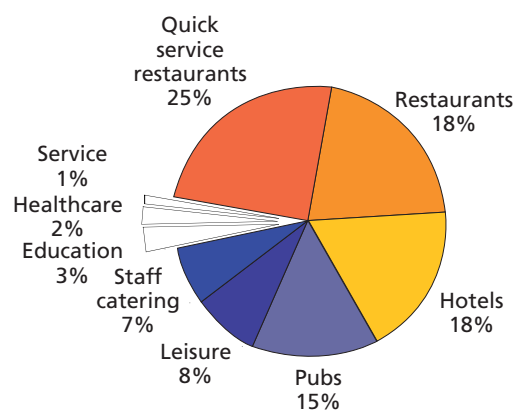
- 38** In a mature market, providing opportunities and encouragement for consumers to trade up to higher-value products has been a means of generating growth over a period in which commodity prices were in long-term decline and food occupied a falling share of household expenditure. And, as the UK has become wealthier, more consumers have become more willing and able to pay more for attributes of convenience, quality and provenance.

Britons are eating out of the home more often

- 39** Restaurants, cafés, work canteens and other food outlets provide one in six meals and on average capture 27% of consumer food expenditure⁸⁷. These collectively constitute the ‘food service’ sector. It is very diverse and employs 1.5 million people – more than any other part of the food chain.
- 40** A large number of meals are provided by so-called ‘cost-based’ catering services, principally in work canteens and contract catering for public services. More than a billion meals are provided each year by the public sector in England and Wales alone in schools, hospitals, prisons and elsewhere (Figure 2.13⁸⁸).

Figure 2.13: Education, healthcare and other public services account for 6% of sales of food service and 29% of meals served outside the home

Percentage share of sales of food eaten outside the home, 2004



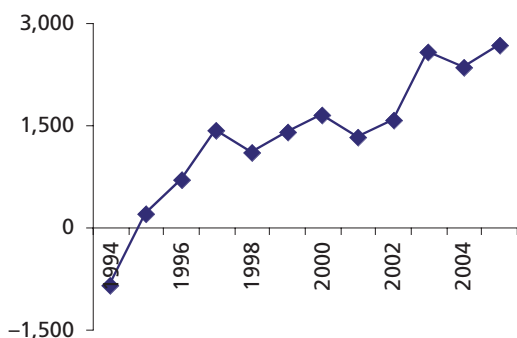
⁸⁶ Office of Fair Trading (2006) *Grocery Market Report*

⁸⁷ Defra (2007) *Food Service and Eating Out: An economic survey*

⁸⁸ Horizons for Success – ‘Services’ includes Armed Forces and prisons

41 ‘Profit-based’ catering services include quick service restaurants, pubs, restaurants, hotels and leisure facilities. These have been areas of significant growth over the past 10 years (Figure 2.14⁸⁹). The distinction between food retailing and food eaten outside the home is increasingly blurring as retailers offer takeaway or sit-down food services.

Figure 2.14: The UK restaurant sector saw strong net growth in business formation between 1994 and 2005
Net VAT registrations, restaurants



Food is the UK’s largest manufacturing sector

42 Food manufacturing accounts for 15% of UK manufacturing output⁹⁰, making it the country’s largest single manufacturing industry. Food and soft drink manufacturers contribute £16.5 billion of gross value added to the economy each year⁹¹.

43 Food manufacturing has played a key part in the under-recognised success of UK manufacturing as a whole in recent years. Looking ahead, the sector faces continuing challenges to raise productivity in the face of downward pressures on prices and upward

pressures on costs. It needs to continue to innovate, to anticipate ongoing changes in patterns of consumer spending and to recruit and develop employees with the skills it needs to succeed. Innovating for growth in a mature market is a continuing challenge – the sector launches around 10,000 new food and drink products a year⁹².

44 With around 75% of food industry sales going to retailers, manufacturers are fully locked in to the competitive pressures operating down through the supply chain. And, as elsewhere in the chain, consolidation continues: the number of food and drink manufacturing firms fell by 21% between 1995 and 2006, even as the total sales of the sector increased by 11%⁹³. In 2004, 3.8% of food and drink manufacturing enterprises (259 companies) generated 76.5% of the sector’s output⁹⁴. Rises in energy costs and food commodity prices put additional pressure on margins in a competitive market where price increases often cannot be fully passed on along the chain.

45 The perishable nature of some products, the local characteristics of national food markets and barriers to international trade of food mean that globalisation of the food industry is still often combined with local production. But in Europe, manufacturing is increasingly being organised on a pan-EU basis, with some firms relocating production from the UK to other member states.

89 Small Business Service

90 ONS (2008) *Annual Business Inquiry*. Figures exclude alcohol, tobacco, animal feed and other non-food products

91 Ibid

92 Mintel, direct communication

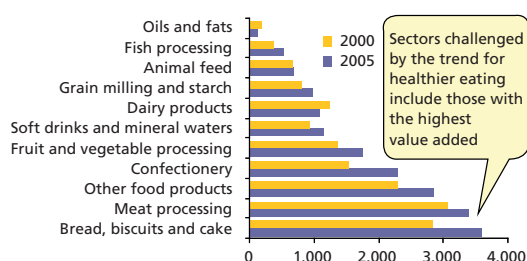
93 ONS (2007) *Annual Business Inquiry*

94 Defra (2007) *Food Statistics Pocketbook*

- 46 The food manufacturing sector has a key role to play in the UK's transition to a healthier diet. Progress is being made in a number of areas through new product development and reformulation of existing products, such as to lower the salt content. But consumers' interest in healthier eating poses challenges for some of the largest and highest-value parts of the industry (Figure 2.15⁹⁵).

Figure 2.15: Gross value added in food manufacturing has grown fastest in confectionery, fruit and vegetables and bread, biscuits and cakes

Food manufacturers' gross value added (GVA) by commodity, £ million



- 47 There is a close alignment between improving productivity and reducing environmental impacts, especially given expectations of increasing resource scarcity and rising input costs. Low-carbon, low-waste, energy-efficient production processes are becoming aspects of comparative advantage.

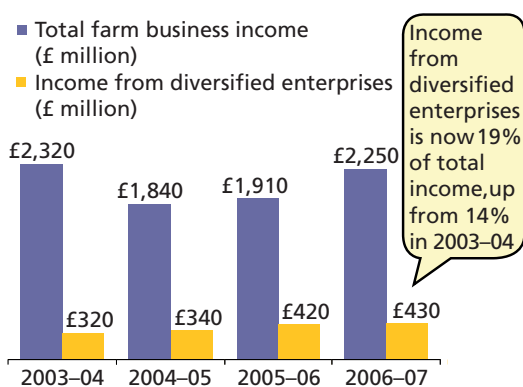
Farming seems set for further change amidst robust global demand for food and increased volatility in world markets, and with the prospect of continuing reform of the Common Agricultural Policy

- 48 UK farming operates to some of the highest standards of land management and animal welfare in the world. The sector continues to adapt to market forces and to changes in the regulatory environment as progressively more controls have been brought into place to protect biodiversity, to manage the threat of animal diseases, to control waste and to prevent pollution.
- 49 Modern farming encompasses a wide variety of business models, from outsourced contracting of arable cropping to the large number of small farms run on a hobby basis. About 60,000 farms in England occupy a farmer for at least half of their time. This is around half of all farms – but these account for 90% of land area farmed and 96% of agricultural production. Aggregate farm income statistics mask wide variations in farm profitability but do suggest that farmers' incomes are more diversified than in the past, with many being less dependent on agriculture (Figure 2.16). Defra estimates the total income from farming (TIFF) in 2007 was £2.5 billion⁹⁶. But this is after receipt of public support – UK farming still receives about £3 billion a year in direct subsidies.

95 Ibid

96 Defra (2007) *Agriculture in the UK*

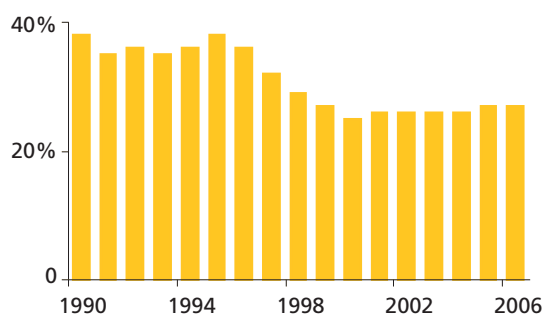
Figure 2.16: Diversified (non-agricultural) activities are increasing as a proportion of farm income
Total farm income and diversified income (£ million)



- 50 Current market conditions create opportunities for many in UK farming. High cereal and oilseed prices, even with higher input costs, reward efficient arable farmers (the UK already exports around 2 million tonnes of wheat a year⁹⁷). But the effects of rapid increases in inputs costs are being felt across the industry. In May 2008 ammonium nitrate fertiliser was trading at £320 per tonne, up from £160 per tonne in just a year⁹⁸, and red diesel cost up to 65p per litre, up from 36p per litre a year before⁹⁹.
- 51 Sectors using significant quantities of animal feed – such as producers of poultry meat, eggs and intensive beef – have been particularly affected by hikes in global commodity markets.
- 52 As the food chain responds to new cost pressures, farm gate prices have again been one of the key issues in the debates about

power in the food supply chain. Data suggest that farmers’ share of the retail basket has changed little over recent years and remains lower than it was in the early 1990s (Figure 2.17¹⁰⁰). As more food is subject to ‘value-added processing’ (e.g. pre-prepared vegetables, ready meals) and the supply chain responds to labour, regulatory and other costs, it might be expected that farmers’ share of the retail basket will shrink. And for much of the last decade commodity prices have been falling in real terms. But for some products, such as liquid milk, there does appear to have been a shift in the distribution of margins away from farmers towards processors and retailers (Figure 2.18¹⁰¹).

Figure 2.17: Farmers’ share of the value of the retail food basket is lower than in the 1990s
Share of food basket, 1990–2006



97 Home Grown Cereals Authority (2008) *Wheat Export Statistics*

98 www.fwi.co.uk/StaticPages/fertiliserprices.htm. Quotes based on 24-tonne load. Domestic N. (34.5%N) SP5

99 <http://farmingforum.co.uk/forum/YaBB.pl>

100 Defra (2007) *Agriculture in the UK*

101 Milk Development Council (now DairyCo), direct communication

Figure 2.18: There is some evidence of a shift in milk margins towards processors and retailers
Liquid milk prices in the supply chain, price per litre (pence), 1996–2006

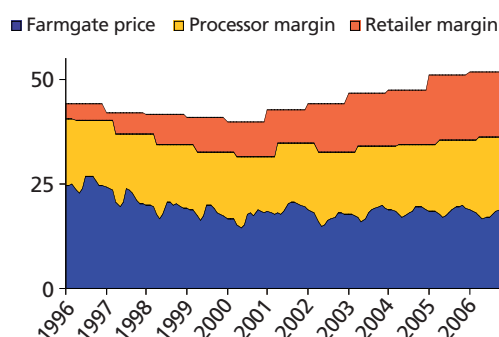
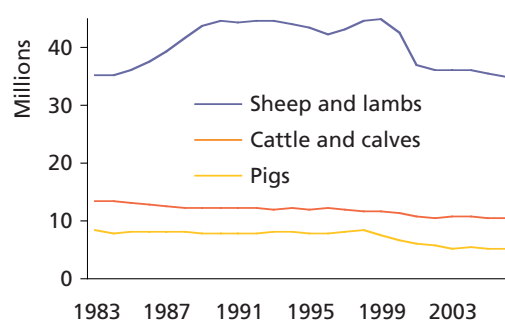


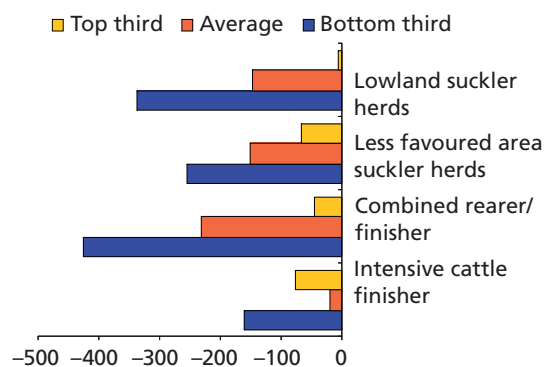
Figure 2.19: Livestock numbers are in decline
Livestock on agricultural holdings in England and Wales, 1983–2006



53 There are large structural differences between different parts of the livestock farming sector in particular. Just four firms provide over 80% of the UK's fresh chicken¹⁰². By contrast, beef and lamb supplies come from a large number of mostly small producers – there are around 20,000 red meat producers in Northern Ireland alone¹⁰³.

54 The UK poultry flock almost doubled in size, to 84 million birds, between 1983 and 2006¹⁰⁴ as the market for poultry grew. But other livestock numbers have been in long-term decline (Figure 2.19¹⁰⁵). Survey data suggest that a high proportion of beef and lamb producers are not covering their costs¹⁰⁶ (Figure 2.20¹⁰⁷). A process of restructuring and adjustment in these sectors was in train even before the current input price hikes.

Figure 2.20: Analysis of industry finances suggests that the majority of beef and sheep enterprises are operating at a loss
Net margin, £ per head of cattle, excluding non-cash costs



55 Single farm payments provide a very significant income stream and with it an opportunity for such producers to diversify, restructure, consolidate or exit. As the process of reform of the Common Agricultural Policy (CAP) continues, this could result in changes to land management practices, especially in upland areas¹⁰⁸. The Government's Foresight

102 Defra (2006) *The Structure of the United Kingdom Poultry Industry*

103 Northern Ireland Red Meat Industry Task Force (2007) *Strategy Review 2007*

104 Defra (2007) *Poultry on Agricultural Holdings*

105 Defra (2007) *Farm Survey to 2006*

106 English Beef and Lamb Executive (2007) *Business Pointers 2007 For Livestock Enterprises*. Also, the Northern Ireland Red Meat Industry Task Force Strategy Review estimated losses among the approximately 20,000 beef and sheepmeat farmers in Northern Ireland at £260 million a year

107 Ibid. *Business Costings of Cattle and Sheep Enterprises for Year Ending 31 March 2007*

108 Defra (2007) *Farm Survey to 2006*

programme has launched a project on future land use which will explore how the use of land may evolve to meet future challenges and how it can deliver economic, social and environmental benefits sustainably¹⁰⁹.

56 So the core themes of the 2002 Policy Commission on the Future of Farming and Food in England remain. These are that there is a need to:

- reconnect farmers with their markets;
- strengthen links in the food chain through greater collaboration and cooperation, to create a more profitable farming sector that can compete successfully in increasingly open markets; and
- address the twin challenges of reducing environmental damage while enhancing the positive impacts of farm practices.

57 Added to these are the need for farming to:

- anticipate and respond to changes in the market as consumers shift towards healthier diets, such as increasing demand for fruit and vegetables;
- shift to more climate-friendly practices, with the opportunities that these offer for energy generation, better waste management and improved productivity; and
- integrate responses to higher world grain and oilseed prices with ongoing efforts to rebuild the biodiversity of the UK countryside.

58 The CAP is set for further reform in the years ahead. The UK Government has set out a clear vision for the future as it approaches those discussions:

- Internationally competitive farming without reliance on subsidy or protection.
- Farmers rewarded by the market for outputs and by the taxpayer for public goods the market cannot deliver.
- Environmentally sensitive farming, maintaining and enhancing the landscape and wildlife, and tackling pollution.
- Not to distort international trade and the world economy.

59 Developing the capability of the farming industry to respond to these issues is a key challenge. The Government has a continuing role in supporting research and skills development, and in giving careful attention to the regulatory burdens put on the sector.

60 A key objective of the Doha Round under the World Trade Organization is to reduce the trade barriers that protect producers in Europe and elsewhere from the full force of global competition. The liberalisation of global trade in food offers a range of potential benefits, such as lower costs to consumers and taxpayers (particularly in OECD countries), more stable international agricultural prices, and improved market access for poor farmers in developing countries. At the same time, critics have raised concerns about the comparability of standards on issues of consumer concern such as animal welfare.

61 **Building consumer demand for food that is produced to the UK's standards of animal welfare and fostering consumers' interest in food's provenance are going to be key issues for producers in the face of strengthening international competition within the EU and further afield.**

¹⁰⁹ www.foresight.gov.uk/LandUse/LandUse.html

The food chain makes good use of the flexibilities of the UK labour market but is exposed to its skills deficiencies

- 62 The food chain supports 3.7 million jobs in the UK (Figure 2.21¹¹⁰). Two thirds of them are in retailing and non-residential catering, and a significant number are part-time. Farming employment has continued its long-term decline (Figure 2.22¹¹¹).

Figure 2.21: The food chain supports around 3.7 million jobs in the UK

Food chain employees, million, GB basis Q4 2006

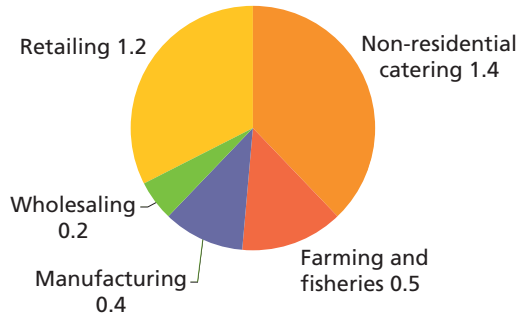
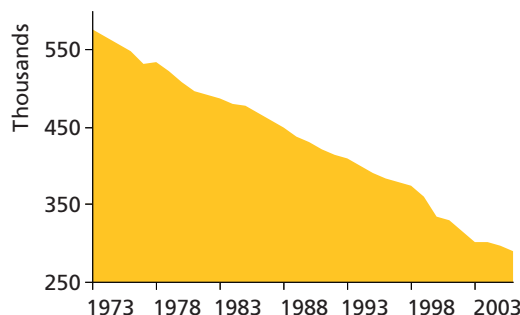


Figure 2.22: The long-term decline in agricultural employment is continuing, with numbers down by almost half since 1973

Full-time equivalent (FTE) jobs in agriculture in the UK since 1973



110 Defra (2007) *Food Statistics Pocketbook*

111 Defra (2007) *Agriculture in the UK*

112 Strategy Unit, based on ONS (2007) *Labour Force Survey*

113 Food Chain Centre/IGD (2007) *Completion Report*

- 63 The flexibilities of the UK labour market are important to agriculture and the rest of the food chain. The food economy has become more dependent on migrant labour (which extends well beyond 'traditional' seasonal agricultural work). Strategy Unit analysis suggests that in 2006 17% of workers in the food chain were foreign-born¹¹², compared with 11% in the UK workforce as a whole. Consumers have benefited from the skills and capacity this workforce has provided, but the long-term challenges remain of sourcing and developing the skills the sector needs.

Evidence suggests that despite the changes that have been seen there is still huge potential to improve productivity along the food chain

- 64 The Food Chain Centre, an initiative supported under the Government's *Sustainable Farming and Food Strategy*, examined 33 chains from farm to fork and found that, on average, 20% of costs in the food chain added no value¹¹³. The Centre's work has highlighted the potential of producer collaboration, customer insight, food chain integration (getting different parts of the chain working together more effectively) and lean thinking (stripping waste from supply chains) to raise productivity and profitability.

The food system provides a platform for public debates about the role of science in society

- 65** Innovations in farming and in food processing, logistics and retail have created the food system we see today. For consumers, most of the associated technologies are destined to remain out of sight and out of mind. Farm tractors guided by computers linked to GPS satellites, irrigation systems that make more efficient use of water and complex IT systems that manage the food logistics chain are just some examples.
- 66** Technologies applied to food itself, and to the animals and plants from which food is obtained, inevitably attract greater public interest. Selective breeding of crops and livestock has been practised for millennia, but developments in biotechnology – such as the capacity to transfer genes between species or to clone individual animals – have dramatically expanded the scope of what is possible and, with it, raised questions among some about what is desirable.
- 67** The public reaction to GM technology in Europe prompted scrutiny of the accountability and transparency of the scientific research process and the systems by which governments appraise innovations. People's right to choose the way in which the food they eat is produced has been vigorously debated. Biotechnology is not the only area of interest – advances in basic science in other areas, such as nanotechnology and nutrition, could prove equally challenging.

Food price rises have rightly prompted questions about the role of public research in delivering sustainable food production systems

- 68** And events in global food markets are already reigniting discussion on the role and scale of public funding in agricultural research – for instance, in the development of higher-yield but more sustainable farming systems and of the crops and other components within such systems. Raising productivity in the developing world is a key challenge for global food security; research that develops the UK's productive capacity in a sustainable way is also needed.

2.3 The global context

- 69** Prices of major food commodities were broadly stable for 20 years from 1985 to 2005. Adjusted for inflation, they fell – a trend made possible by productivity gains in agriculture. From the 1960s onwards, total agricultural output grew faster than world population.
- 70** For much of the last few decades global markets have also been affected by the agricultural policies of major producers in the Organisation for Economic Co-operation and Development (OECD), whose agricultural policies raised prices for their own farmers and often saw surpluses deposited on international markets. Global prices, and the incentive for farmers elsewhere to invest in greater productivity, were depressed.

71 But there has since been a dramatic change. As with energy and other commodities, prices on global food markets have recently risen steeply and shown significant volatility.

72 Different commodities have been affected to varying degrees and at different times but, as of mid-2008, prices of all major traded grains and oilseeds are well above the levels seen between 2000 and 2005 (Figure 2.23¹¹⁴). This market behaviour has been attributed to a number of supply-side and demand-side factors: some specific to particular commodities, some common to all; some short term, some long term. The factors in this mix include:

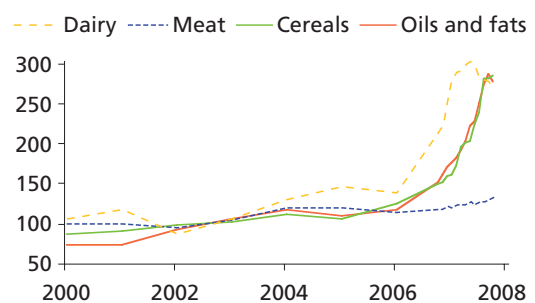
- poor harvests in some exporting countries (for example, a drought in Australia significantly reduced its wheat exports in 2006 and 2007);
- higher costs of energy (the global oil price has increased from US\$62 to more than US\$130 a barrel in the last year¹¹⁵), fertiliser (nitrogen fertiliser prices doubled between April 2007 and April 2008¹¹⁶) and transport (the Baltic Exchange Dry Index of bulk cargo shipping rates more than tripled between July 2006 and October 2007¹¹⁷);
- a fall in the stocks of food that would otherwise buffer market fluctuations (due in part to agricultural policy changes by the EU, US and China);
- the diversion of some commodities to

biofuel production, which has direct and indirect impacts; and

- a long-term rise in demand for grain to feed a growing global population, which is being accelerated by an income-driven increase in consumption of meat and dairy products (producing 1 kg of beef requires 7–10 kg of grain¹¹⁸).

Figure 2.23: Recent price changes have been largest in dairy products and significant in cereals (especially wheat) and oilseeds, but meat commodities are little changed

FAO price indices (1998–2000=100)



73 Some commentators have suggested that financial speculation has been a further contributory factor in price rises, but this is difficult to substantiate. The basic mismatch between demand and supply, and the resulting tightening of markets, is the fundamental issue. A more detailed discussion of the behaviour of these markets is given in a recent UK Government paper¹¹⁹.

114 FAO (2008) *FAO Food Price Indices*

115 Crude oil prices, NYMEX data from the *Financial Times*

116 Bridgewater figures, quoted in *Farmers Weekly*

117 The Baltic Exchange Ltd, change as measured by the Baltic Exchange Dry Index (BDI) – a measure of the price of moving dry bulk commodities by sea

118 Garnett T, Food Climate Research Network (2007) *Meat and Dairy Production and Consumption*

119 HM Treasury (2008) *Global Commodities: A long-term vision for stable, secure and sustainable global markets*

Impacts are now being felt by consumers and producers here and abroad

- 74** Higher food prices are adding to the inflationary pressures brought on by higher energy costs. In the UK the impact of global commodity price rises on consumers is diluted to a degree by the comparatively low share of household spending allocated to food and by the types of food we buy. Some price increases are absorbed in the supply chain, squeezing margins, before they are fed through to consumers. But food price increases have pushed up the cost of living for many families, and seem set to put a brake on the long-term trend of increasing the affordability of food.
- 75** Here, as elsewhere, increases in food prices hit the poorest hardest. In 2006, an average of 8.9% of UK household expenditure was spent on food, rising slightly to 9.2% in 2007. But the poorest 10% allocated 15% of household expenditure to food in 2006 and so are particularly affected by rises in the cost of basic foodstuffs such as milk, bread and eggs, which have risen in price by far more than the average for the shopping basket as a whole.
- 76** In developing countries, 50–80% or more of household expenditure may be spent on food¹²⁰. People for whom maize flour or rice is a staple of the diet are also highly exposed to changes in basic commodity prices. Those commodities account for only a small share of the cost of manufactured foods common in the

UK – one estimate is that the cost of wheat currently accounts for only 13% of the final price that consumers pay for a loaf of bread¹²¹.

- 77** For producers the effects are mixed. Intensive livestock and poultry producers have experienced rapid increases in feed costs, which are a significant proportion of overall costs. Lags on and limits to the rate at which such cost increases can be passed on put additional pressure on margins. UK arable farmers are well placed to seize the opportunities of the current market conditions, albeit in the face of more costly inputs (e.g. fertiliser, diesel).

Agricultural trade liberalisation would help to address current problems; trade restrictions threaten to worsen them

- 78** Only a small share of global grain production is traded; and, with stocks at historical lows, markets are prone to volatility. As the situation has unfolded since summer 2007, feedback loops have been established that have risked further exacerbating this volatility. Some countries have restricted grain exports with the intention of safeguarding supplies for domestic consumers, thereby putting further constraints on global supply and fostering fears of scarcity. Prompted by such fears, others have attempted to secure large quantities of food at short notice, creating the conditions for price spikes in markets where stocks are low.

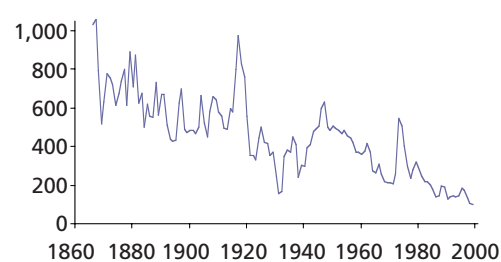
¹²⁰ FAO. Other research suggests that up to 90% of the household income of the very poorest families can be spent on food (Fra von Massow (2001) Oxfam Working Paper – *Access to health and education services in Ethiopia: supply, demand and government policy*). The landless poor in rural areas can be as badly affected as those in towns and cities

¹²¹ Defra (2008) *January 2008: Farming and Food Brief, Annex B*

79 High prices provide a strong signal to farmers to increase production. Leading indicators for commodities such as wheat, including areas planted and prices on the futures markets, suggest that a supply-side response is taking place. But individual crops take time to grow, and new investment will take time to have an impact on capacity in the industry. Substantial increases in output will not reach the market for a while. And loss of production due to weather-related factors – unusual rainfall patterns, high temperatures, drought, floods and storms – is an ever present risk.

80 Episodes of higher prices and volatility are not uncommon in food markets, as illustrated by long-term wheat prices (Figure 2.24¹²²). Some commentators believe that today's particular set of global circumstances represent a fundamental change and that very high prices will be sustained. OECD/FAO projections¹²³ suggest that food commodity prices will fall from their current levels over the next few years, but are unlikely to return to the lows seen over the past five years. Robust demand and energy costs, particularly the international oil price, are among the factors likely to support prices. But it is clear that there is a range of possible 'futures' for world food markets over the next 10 years¹²⁴.

Figure 2.24: US wheat prices have fallen from 1866 to 2000
US\$/tonne, constant 1999 prices



81 Volatility is likely to remain an issue if the balance between supply and demand remains tight. The food chain can expect to be paying more attention to managing price risks than was the norm over the last 10 years, when prices were relatively stable. Volatility could be exacerbated if more countries impose trade restrictions and further limit liquidity in the market.

82 The recent international market fluctuations re-emphasise the positive case for trade reform and completion of the Doha Round, liberalising multilateral trade to provide price incentives for farmers around the world to produce food in the locations where it is efficient to do so. Tariffs on many foods – especially meat – are high. The Department for Environment, Food and Rural Affairs (Defra) estimates that in 2006 the CAP cost £557 to every household of four people in the EU through higher consumer food prices and in tax¹²⁵.

¹²² Department for International Development (2008) *World Food Prices, Impact on Poverty*

¹²³ OECD/FAO (2008) *Agricultural Outlook 2008–2017*

¹²⁴ See, for instance, Chatham House (2008) *Thinking about the Future of Food, The Chatham House Food Supply Scenarios*

¹²⁵ Defra/Strategy Unit calculations based upon OECD (2007) *Agricultural Policies in OECD Countries: Monitoring and evaluation 2007*. Estimate is €799 per household

International food prices – the UK response

- High food prices are a global problem requiring coordinated international action. To tackle this problem effectively, we need an open, global trading system and an end to trade-distorting subsidies and export restrictions. Conclusion of the Doha Development Agenda would help to achieve this, boosting economies and lifting millions out of poverty in the process.
- To ensure that there is a sufficient global supply of food we need to maintain open markets, increase investment, particularly in agricultural research, and increase the production capacity of developing countries.
- In domestic markets, we need to ensure healthy and fair competition across the food supply chain (including production and distribution), that consumers receive the benefits of that competition and that we eliminate or reduce EU import tariffs that keep prices high. In the UK we are also helping those most in need, such as people in low-income groups, who spend proportionately more on food.
- In addition we need to help the poorest countries through the current crisis. The UK has announced a £455 million aid package. We need others to respond – in particular to the appeal from the World Food Programme.

- Some biofuels can potentially play an important role in tackling climate change, but we must ensure that they are sustainable and that they do not distort food markets.

The Government has published its analysis of the recent events in food and energy commodity markets, and has put forward a framework to guide the international community's response to events in global commodity food and energy markets¹²⁶.

The Government is taking steps to ensure that the interactions between biofuel policies and food markets are better understood – so that policies can be adjusted if necessary

- 83 The use of food crops such as maize, wheat and oilseeds for biofuel production is coming under increasing scrutiny, not only with respect to the net GHG benefit but also because of the potential impact on food prices.
- 84 A number of factors have driven recent food price increases – demand for biofuel is only one. But this is an area where, through the targets they set, governments have greater control over an influence on the food market, and it is important that policy is well informed and sensitive to the differences among the different fuels. The evidence base is evolving quickly, but it seems clear that biofuels are a more significant factor in some food markets than others: diversion of maize to bioethanol is generally thought to have had an impact on the maize market¹²⁷, whereas rises in rice prices are likely to have had other causes.

126 HM Treasury (2008) *Global Commodities: A long-term vision for stable, secure and sustainable global markets*

127 See for example IMF (2007) *World Economic Outlook October 2007* and analysis by U.S. Department of Energy and U.S. Department of Agriculture at: www.doe.gov/media/Secretaries_Bodman_and_Schafer_Ltr_to_Sen_Bingaman.pdf

- 85** World biofuel production has increased rapidly in recent years from a low base. But the EU and other OECD biofuel targets for 2020 imply much greater output and diversion of foodstuffs into fuel – both in absolute terms and as a share of output – than today. The risks that biofuel policies could exacerbate global food price increases over the coming decade need to be much better understood so that any concerns can be addressed in advance.
- 86** The conversion of wheat to bioethanol and oilseeds to biodiesel are examples of direct competition between food and fuel applications. Standards are being developed to manage and monitor the environmental impacts of biofuel production, such as the potential for forest clearance for palm oil, and to consider social issues, such as the involuntary displacement of people. But there is also a concern that sustainability criteria applied to biofuel production cannot adequately control for the environmental effects of demand displaced to other locations. With integrated markets, higher demand in agricultural markets – whether for food or fuel – will be met by additional production somewhere in the world. The environmental impacts of that displaced demand are not easily identified or controlled.
- 87** Tariffs on traded biofuels further complicate the picture. EU import tariffs on ethanol, for instance, mean that bioethanol derived from sugar cane (one of the more cost-effective biofuel technologies) is less competitive within the EU. This increases the cost of carbon abatement and, with more demand for biofuel
- having to be met from EU domestic farm output, so increases the impact on local patterns of land use.
- 88** Climate mitigation strategies should seek to achieve the maximum carbon savings for society for any given level of investment. The subsidy in OECD countries to first-generation biofuels has been estimated at US\$11 billion in 2006¹²⁸. Abatement through first-generation biofuels is much less cost-effective than equivalent carbon savings available via the EU Emissions Trading Scheme and other measures available. Costs have been estimated at between €575 and €800 per tonne CO₂ equivalent for bioethanol made from sugar beet and over €600 for biodiesel made from oilseed rape¹²⁹. These prices compare with an EU ETS allowance price of €20–€30 per tonne CO₂ equivalent¹³⁰. It is hoped that second-generation biofuels now in development might ultimately offer better economics and fewer potential drawbacks, but these are some years away from market.

The UK Government has taken a lead role in developing sustainability criteria for biofuels. And earlier this year it directed the Renewable Fuel Agency to conduct a review of the displacement effects and of the impact that biofuel policies might have on food prices in the period up to 2020. The findings of this review, which was led by Professor Ed Gallagher, are informing the further development of UK policy on biofuels.

128 International Institute for Sustainable Development (2007) *Biofuels – At What Cost?* (provisional estimates)
 129 Defra (2008) *Estimating the Value for Money of Government Support for Biofuels*
 130 New Carbon Finance, www.newcarbonfinance.com

The UK’s own trade imbalances in food reflect factors that include the competitiveness of UK producers, the aftermath of animal disease outbreaks and year-round consumer demand for foods that are available locally for only part of the time, if at all

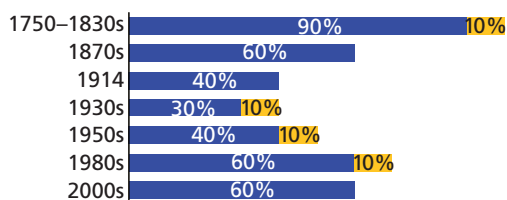
- 89 As one of the world’s wealthiest nations, a part of the European single market and a country well integrated into global markets, the UK is well placed to access the foods it needs and weather the storms in global food markets. But the recent global food price increases have reignited debates about priorities in land use and about national food security.
- 90 These debates can get confused, not least because ‘food security’ is a term devalued by use in too many different contexts, from affordability problems experienced by low-income households here in the UK through to national food supply and to distribution challenges in developing countries. It is often read as ‘self-sufficiency’. But domestic self-sufficiency would not protect against animal health crises or crop failures in the UK. And in a world where the inputs to food production (such as oil, fertiliser and feed¹³¹) are internationally traded, a focus on the location of final output gives a very misleading impression of security. Food security policy is properly focused on the availability, accessibility

and affordability of food and is thus concerned with matters such as the diversity of supplies and the resilience of the supply chain to shocks¹³². Improving competitiveness in food production, raising sustainable output and building a successful food chain economy are important objectives in their own right. They may result in ‘positive’ movements in self-sufficiency measures but do not need to be justified in those terms.

- 91 ‘Self-sufficiency’ and trade figures nevertheless offer a window onto the shifting contours of competitiveness experienced by UK producers. In 2006, 49% of food consumed in the UK was produced here, but this measure does not take account of food produced for export¹³³. In value terms, overall food production (including exports) amounted to around 60% of domestic consumption in 2007¹³⁴. On this measure, self-sufficiency is lower than the peak it reached in the 1980s but is, as research by Defra has illustrated¹³⁵, well within long-term historical norms (Figure 2.25¹³⁶).

Figure 2.25: Today’s self-sufficiency ratio is still high by historical standards in the UK

UK self-sufficiency – lighter shading shows range (%)



- 92 In 2006 the UK exported £10.5 billion and imported £24.8 billion worth of food, feed and

131 The UK is a net energy importer. The UK was only 46% self-sufficient in fertiliser in 2006 (Defra)

132 Defra will issue a discussion paper on UK food security to follow this Strategy Unit report

133 Defra (2008) *Agriculture in the UK 2007*

134 Ibid. UK raw food production, expressed in farm gate value terms

135 Defra (2006) *Food Security and the UK: An evidence and analysis paper*

136 Ibid

drink products¹³⁷. In the same year 68% of food imports came from elsewhere in the EU¹³⁸. These trade patterns reflect the interplay of local consumption patterns (consumers' preference for British meat, tropical or out-of-season fruits, French cheeses, Italian hams or year-round salad vegetables), the output of UK producers and their success in exporting. Consumers' tastes would need to alter for import patterns to change substantially, but competitive, innovative UK food producers offset the impact on the UK's trade balance (as has been illustrated by the success of Nephrops (langoustine) exports).

93 UK self-sufficiency varies by food commodity (Figure 2.26¹³⁹). The stories of three food categories illustrate the issues behind the headline figures:

- Fruit and vegetables account for much of the UK's food trade deficit – imports were £6 billion in 2006 (Figure 2.27¹⁴⁰). Constraints of climate and the seasons impose limits on how far UK producers are able to meet current patterns of demand, which should rise if the 5 A DAY message is adopted more enthusiastically by consumers.
- A large trade imbalance in meat persists. UK meat export bans were triggered by the outbreaks of BSE and foot-and-mouth disease. These diseases had a large impact on the UK's food trade balance: overall food self-sufficiency dropped by more than five percentage points between 1995 and 1997 alone in the wake of the BSE outbreak.

Figure 2.26: UK self-sufficiency varies greatly from commodity to commodity

Self-sufficiency ratios by commodity, 1980–2007

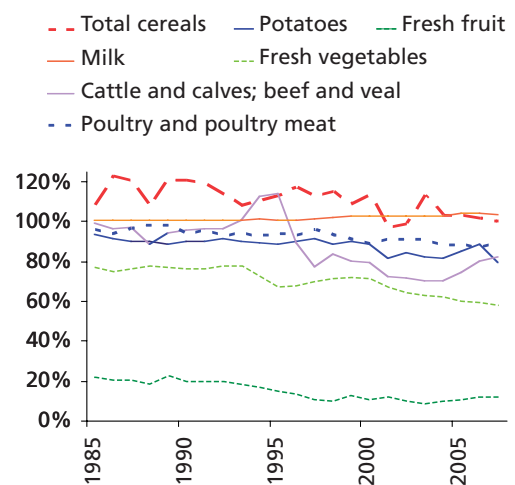
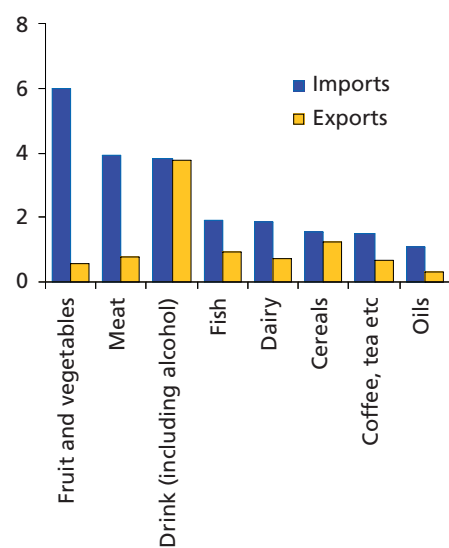


Figure 2.27: By value the UK is a net importer in each broad category of food, with the biggest trade gap in fruit and vegetables

Trade by food group, £ billion at current prices, 2007



137 Including alcohol

138 Defra (2008) *Agriculture in the UK 2007*

139 Ibid

140 Defra (2008) *Agricultural Quick Statistics*

- The UK has a trade deficit in fish of around £0.8 billion. But fish imports are mostly exotic species (such as tuna and Asian prawns) and those temperate species (mainly cod and haddock) that can no longer be sourced in sufficient quantity from the over-fished waters around the UK.

94 Trade rules and duties shield the EU market from the full effect of competition from countries that have a well-established comparative advantage in some products (e.g. Argentina for beef, Brazil for sugar). For the UK, with most competition coming from Europe, the euro–sterling exchange rate is a key factor in competitiveness and trade – as seen in rising imports over recent years of cheese, butter and pork from the Netherlands, Denmark, the Irish Republic and France.

95 **The principal food security challenge for the UK is a global one.** A world in which food is scarce and less affordable is less stable. If yields in Africa and elsewhere in the developing world reached their potential, global food output would be very much higher, far fewer people would go hungry, and the threat of food-related political and social instability around the world would decrease. Production of cereals and other food in the UK makes a small but meaningful contribution to overall global food supply. UK demand supports the livelihoods of those in the food supply chain. But the UK seems likely to have a greater impact via its influence on international policy, diplomatic initiatives, development programmes and research efforts.

The way ahead

96 The price shocks in global food markets may subside in the coming years, but the underlying issues of increasing scarcity of water and other resources, and of rising demand and climate change, will remain. The World Bank estimates that cereal production needs to increase by 50% and meat production by 80% between 2000 and 2030 to meet demand¹⁴¹.

97 The share of agriculture in official development assistance declined from about 18% in 1979 to 3.5% in 2004. In value terms it fell from US\$8 billion in 1984 to \$3.4 billion in 2004¹⁴². The attention of governments around the world and international institutions has focused on other issues over recent decades. Recent events signal that a higher priority should be given to this issue, especially in the developing world. Long-term issues cannot be resolved without additional effort and investment.

98 Even before the recent food price rises, 850 million people were suffering from chronic hunger. Last year, more people died because they were hungry and malnourished than from AIDS, malaria and tuberculosis combined¹⁴³. The cost of feeding those in most need has risen and more short-term support is urgently needed.

99 The UK has been working with international agencies to address these issues and is helping affected countries directly, including the delivery of long-term assistance that will help them build their capacity to produce food.

100 As these challenges are addressed, it is clear that solutions from the past are not going to be fit for the future realities:

¹⁴¹ World Bank (2008) *World Development Report*

¹⁴² *Ibid*

¹⁴³ World Food Programme, *Winning the War on Hunger*, www.wfp.org/policies/introduction/other/documents/guide_winning_hunger/default.html

- The current concern with food price fluctuations must not result in a reconstruction of the kind of policies and programmes that have distorted agricultural markets and damaged the environment in the past. Farmers across the world will respond positively to price signals from the global market, given a chance to do so, and freer trade in food will allow people to access food more cheaply.
- Too much of the agricultural productivity gain of the past 50 years has been bought at the expense of genetic diversity and the environment, with unsustainable exploitation and pollution of water resources, soils and valuable natural habitats. Natural resources have been underpriced and agricultural markets distorted and overprotected. The increasing scarcity of water, land and other resources means that in 2050 a world population of 7.8 to 10.8 billion people will need to use a different mix of production methods and, quite possibly, see diets change.
- Climate change adds two additional compelling dimensions to the future global food challenge: agricultural systems will need to be adapted to the impacts of climate change, which include higher average temperatures, changes in the distribution of rainfall and increased frequency of extreme weather events; and agriculture will need to play a full part in the mitigation of GHGs and so help to tackle the causes of climate change.

101 The scale of the challenge of raising output to feed a larger, wealthier human population, adapting to climate change and mitigating food-related emissions, all at once, is not to be understated.

3 Future food policy: vision, strategic priorities and approach

- The Government's vision for the food system is one that is more sustainable – economically, socially and environmentally.
- The future strategic policy objectives for food should be to secure: fair prices, choice, access to food and food security through open and competitive markets; continuous improvement in the safety of food; a further transition to healthier diets; and a more environmentally sustainable food chain.
- In pursuing these objectives, the Government's role should be to correct market failures, to ensure social equity and to facilitate a public debate about food that fosters cultural and behavioural change.
- Many of the policies that are needed are already in place. But central government needs to better integrate the different elements and to work with the public, food chain businesses, other stakeholders and other tiers of government to put a new policy framework in place.
- Building on this report, the Department for Environment, Food and Rural Affairs (Defra), the Department of Health and the Food Standards Agency (FSA) will take forward a process of consultation with the aim of producing a final statement of the vision and strategic objectives for food policy by October 2009.

1 This chapter maps out proposals for a new strategic policy framework for food, and it:

- describes how the food system might evolve in the future;
- explores the focus of, and limits to, food policy including a description of the current strategy landscape; and
- sets out proposals intended to bring greater clarity to the Government's vision for the future and strategic objectives.

3.1 There is a future for food that is more sustainable in every respect: economically, environmentally and socially

2 At the heart of this vision is the integration of four goals – the economic vitality of the food industry, safe food, healthy diets and reduced

environmental impacts. One is not at the expense of the other. Nor should the goals be achieved at the expense of individuals' freedom of choice about what to eat. What will this mean for the food system in the future?

3 This future food system will be sustained by consumers who understand food, how it is produced and how to prepare it. It will sit in a society where learning about food is as much part of growing up as learning to cross the road. The gap between how people think as citizens and act as consumers when choosing what to eat will narrow.

4 It will be a system with high levels of trust, challenged and supported by civil society but with the means and the will to work through problems through informed debate rather than conflict and confusion.

- 5 It will be a system in which clear and well-founded advice is widely available – from industry, government and non-governmental organisations (NGOs) – but consumers are not overwhelmed by information. And consumers will be readily able to access healthy, low-impact food that fits their lifestyles – whether cooking from basic ingredients or buying a prepared meal.
- 6 The future UK food supply chain will continue to be a major source of wealth creation and employment, competitive internationally and continually developing the skills and capability of its workforce. Its success will be built on more open markets that provide opportunities for UK producers to serve the global food market, and opportunities for producers in Africa and elsewhere to meet consumer demands and play their part in feeding the UK.
- 7 It will be populated by diverse, successful, innovative food businesses – small businesses and large, high-tech and traditional production, niche and universal. A thriving UK food manufacturing sector and vibrant catering and retail sectors will offer choice and value. Farming will no longer be subsidised. A profitable fishing industry will be the proud custodian of sustainably managed fish stocks.
- 8 Competition along and across each part of the food chain will encourage innovation, a focus on the consumer and the best use of resources. It will be a system that maintains minimum common standards for food production, but encourages progress beyond them. Continual improvement across the food chain will be sustained by society's willingness to pay collectively through new standards, or individually through consumer choice.
- 9 The impact of diet on physical and mental well-being will be much better understood. Today's upward trend in obesity will have been reversed. Diet-related ill health will be in decline. Premature deaths due to diet-related disease will have fallen.
- 10 Food safety will have improved across the food chain. Microbiological contamination of meat will be much less common and more consumers will be able to prepare food safely.
- 11 Farmers will respond to the demands of the market and the impact of climate change in a way that ensures biodiversity and ecosystem services are increased, not lost. Natural resources will be responsibly managed and external costs (such as greenhouse gas (GHG) emissions and water pollution) properly priced – so that the polluter pays for the pollution that he or she causes, and producers' supply of public goods (such as enhancing biodiversity) is rewarded. Coherent incentives for prevention, re-use, recycling and recovery will ensure that little is discarded. Production will be more efficient, consumption less wasteful. It will be a food system that, end-to-end, is playing its full part in mitigating GHG emissions and becoming fit for a place in a low-carbon economy.
- 12 The Government will play its part in this vision by ensuring that market failures – of information, competition, pricing of externalities, etc – are avoided and social

equity is safeguarded. Long-term societal goals will be clearly stated and consistently followed, with government taking a lead in encouraging the cultural and behavioural changes that are needed to achieve the goals. When different approaches are tested in different parts of the UK, lessons about what works will be learnt and good practice will be disseminated. Government will invest in public goods – including research – that support the further development of the food system. And food served in the public sector will be of a universally high standard (setting an example for others to follow) and will make a positive contribution to a nutritionally balanced, low-impact diet.

There is clearly more to do if a vision of this kind is to be realised

- 13** The UK Government has set out its ambition for a number of aspects of the food system. For example, it has outlined plans to support the transition to healthier diets and to tackle obesity; it has strengthened arrangements for food safety; it has established a robust long-term framework for reducing carbon dioxide emissions; and it has taken steps to raise standards of public sector food. But if a real transformation of the food system is to be achieved, effort will need to be redoubled and the myriad existing actions better integrated, in order to really achieve the desired outcomes.

3.2 Government has an important role in correcting market failures, addressing equity concerns and fostering positive culture change relating to food

- 14** The Government's core role in the UK food system is:
- to correct market failures where they arise (the food economy may be distorted by market failures caused by poor information, imperfect competition, the failure to price externalities and the under-provision of public goods); and
 - to ensure that social equity is safeguarded. Generally, this will be achieved through the tax and benefit system, but special measures may be needed in some cases to ensure that the more vulnerable in society have adequate access to nutritious food (as in Box 3.1).

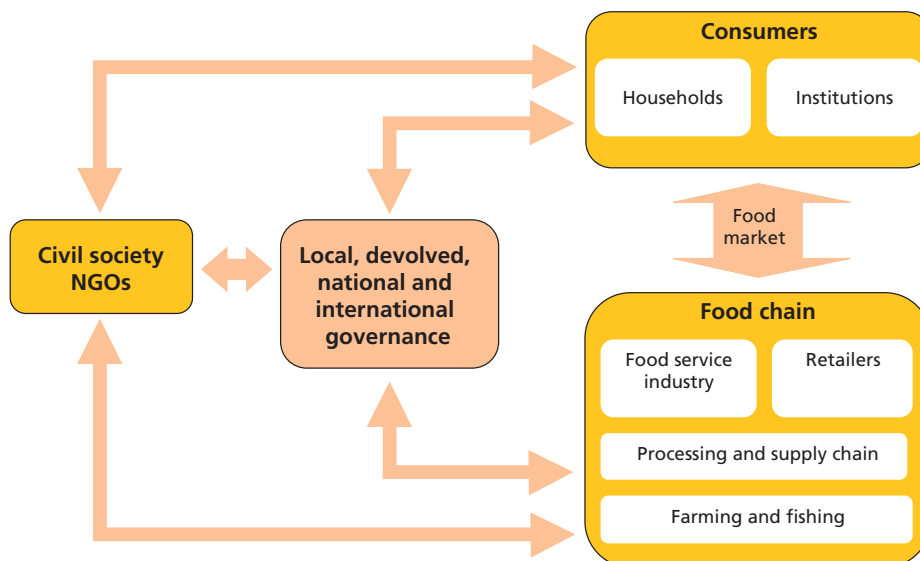
Box 3.1: Healthy Start

Healthy Start provides nutritional support to around half a million pregnant women and to children under four in low-income and disadvantaged families across the UK, particularly women and children in unemployed families and pregnant women under 18 years old. The scheme provides weekly vouchers to put towards the cost of milk, fresh fruit and vegetables or infant formula at participating retailers.

Around 30,000 retail outlets accept Healthy Start vouchers. Women and families taking part are also given information about breastfeeding and healthy eating to help them make the best use of the scheme and to encourage healthy behaviours.

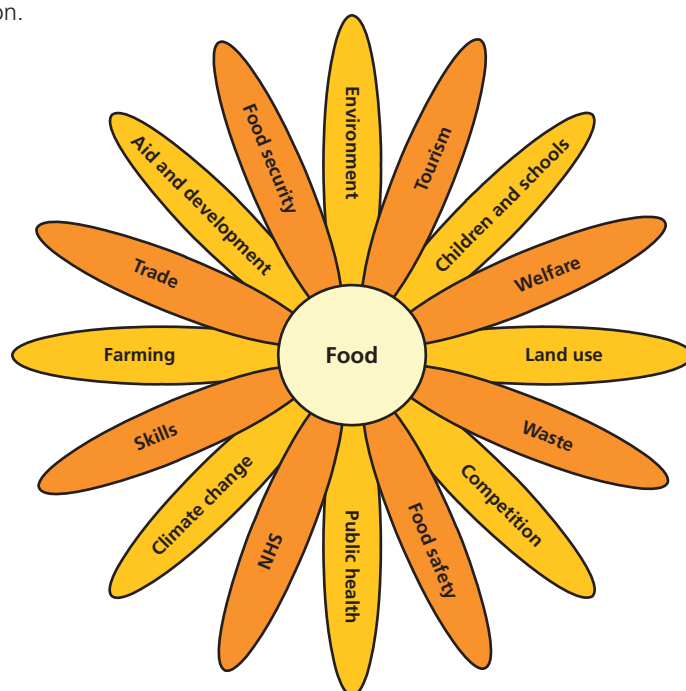
- 15 Government also has a role in setting the tone and direction of public debate about food, and a role in fostering cultural and behavioural change. That leadership and agenda-setting role can be a powerful complement to direct interventions, but needs to be based on an understanding of its place and influence – national government is but one actor (Figure 3.1) in a system constantly changing under the influence of socio-cultural trends, economic forces, environmental factors and ongoing advances in science and technology.

Figure 3.1: National government is one (albeit important) actor in a food system with many internal linkages and feedback loops – in many areas its role may be to lead, influence and catalyse change rather than to exert direct control



- 16** A host of social, economic and environmental issues that we face as a society, from poverty to climate change, are manifest in the food system, but these are rarely food-specific problems. Tackling these issues through interventions in the food system is unlikely to be the best solution – it is generally better to target the source of the problem. Food touches on many areas of public policy (Figure 3.2) but it is the direct concern of relatively few.
- 17** Since a market failure revealed in the food economy is not necessarily a basis for a policy focused only on the food sector, real clarity is needed about what the problem is and where the appropriate point of intervention is. For example, the effects of poverty on access to food are better addressed through the tax and benefit system, and focused interventions targeting those most in need, than by the Government attempting to drive food prices below the economic cost of production.
- 18** And even where a clear market failure exists, the process and targeting of any intervention may not be straightforward. There may be practical (technical, logistical and economic) issues to be overcome, as there are in addressing the GHG impacts of current farming systems. There may also be areas where the legitimacy of government action is uncertain, such as the extent to which it should seek to influence dietary choices towards healthier foods, which may be seen as a matter of individual choice. But, in the same way that scientific innovation can expand the limit of what is technically possible, cultural change can, over time, alter the boundaries of government’s ‘licence to operate’ – as has happened with smoking and drink-driving.

Figure 3.2: There is a food dimension to many areas of public policy



Many of the key elements of a comprehensive food policy are already in place

- 19** The UK has not had a comprehensive and formal statement of 'food policy' since the Second World War. Today, a patchwork of strategies addresses different aspects of the food system and the market failures in each discrete area.
- 20** Devolution adds additional complexity, with distinct food strategies and areas of policy differentiation in Scotland, Wales and Northern Ireland.
- 21** Focusing here on England, there is:
- for farming and fishing: *Sustainable Farming and Food Strategy* (England only), *UK Vision for the CAP, Fisheries 2027* (England only);
 - for food industry environmental impacts in England: *Food Industry Sustainability Strategy*;
 - for health impacts in England: *Choosing Health: Making healthy choices easier* (2004), *Food and Health Action Plan* (2007), *Healthy Weight, Healthy Lives: A cross-government strategy for England* (2008); and
 - for food safety across the UK: the *FSA Strategic Plan (2007–2010)*.
- 22** There are also generic statements of policy and strategy that have relevance to the food chain, such as the energy *White Paper* (2007) and the *Waste Strategy for England* (2007).
- 23** Food objectives are already built into the UK Government's performance management framework:
- Defra has a departmental objective (an 'Intermediate Outcome') to reduce the global impact of UK food consumption and production on the environment, as measured by a decrease in net GHG emissions from the food chain¹⁴⁴.
 - Food and health issues are picked up in two Public Service Agreements (PSAs):
 - For children and young people¹⁴⁵: *'Increasing the number of children who have school lunches... reducing the rate of increase in obesity among children under 11'*.
 - For better health and wellbeing¹⁴⁶: *'To continue to increase life expectancy by tackling the biggest killer diseases, with an emphasis on ill health prevention'*.
 - Policies that shape the business environment for food chain industries are covered by PSAs on skills, competition, productivity and migration (rather than sector-specific objectives)¹⁴⁷.

¹⁴⁴ Defra (2008) *Intermediate Outcomes and Their Indicators*

¹⁴⁵ PSA Delivery Agreement 12, October 2007

¹⁴⁶ PSA Delivery Agreement 18, October 2007

¹⁴⁷ PSA Delivery Agreements: productivity (1), skills (2) transport (5), business success (6), October 2007, all at www.hm-treasury.gov.uk/pbr_csr/psa/pbr_csr07_psaindex.cfm



The Scottish Executive launched a 'national conversation' leading up to the release of a national food policy for Scotland



Wales has developed strategies for food and health, and for food sector development

Northern Ireland has developed a vision for its food sector



But a clearer framework is needed that fits the different elements together more effectively and ensures that all are pursued with increased vigour and coherence

- 24 Despite the strength of many of the strategies and policies described above there is a sense, reinforced by the stakeholder consultations conducted for this project, that UK food policy today is somewhat less than the sum of its parts. The relationship between different elements is not always clearly spelled out and the relative importance of objectives in different areas is not always clear.
- 25 The rest of this chapter provides proposals intended to help create a more coherent framework for UK food policy. It considers:
 - **the Government's approach** to catalysing change in the food system;
 - its **policy objectives**; and
 - the **strategic policy framework** needed to tie the various elements together.
- 26 Proposals on the institutional arrangements that are required to deliver these and other proposals in this report are set out in chapter 7.

The transition to a truly sustainable food system requires the collective support and cooperation of business, consumers and government

- 27 Transformation of the UK's food system will require:
 - a greater level of collective effort if current levels of damage to health and the environment are to be reduced significantly and a further step change made in food safety;
 - a strategy for food that is capable of tackling the core issues in a more integrated manner – connecting responses to the health, environmental, economic and food safety challenges in a coherent way; and
 - partnership between the Government and others to catalyse change in a system over which the Government's direct control is often limited.
- 28 The model of change put forward by the Sustainable Consumption Roundtable in its report¹⁴⁸, *I Will If You Will*, seems well suited to the food system: business, consumers and government each have a role in catalysing

148 Sustainable Development Commission and the National Consumer Council (2006) *I Will If You Will: Towards sustainable consumption*, Sustainable Consumption Roundtable report

a transition to a more sustainable UK food system. The three elements of that model define the following three chapters of this report:

- the Government's **engagement with consumers** (chapter 4);
- the Government's **engagement with the food supply chain** (chapter 5); and
- the Government's own **leadership role**, as demonstrated by the standards applied to food provided by the public sector (chapter 6).

29 The following three chapters provide examples of where the 'fit' of current policy, to present issues and future challenges, could be improved in these three areas.

The four key concerns of food policy should be open and competitive markets, food safety, public health and the environment

30 Four key strategic policy objectives for food emerge from the analysis of trends and challenges in the previous chapter. These are set out in Action 3.1.

Action 3.1: Strategic policy objectives for food

The Government's four strategic policy objectives for food should be to secure:

- fair prices, choice, access to food and food security through open and competitive markets;
- continuous improvement in the safety of food;
- the changes needed to deliver a further transition to healthier diets; and
- a more environmentally sustainable food chain.

Fair prices, choice, access to food and food security are best achieved through the efficiency and innovation of open and competitive markets

31 A key objective for food policy should be for food to be traded at a fair price. This means consumer prices that reflect fair trading practice in competitive markets throughout the supply chain, and efficient pricing of inputs (such as water) and of the external costs and benefits of production (such as the costs of environmental pollution), wherever the food is produced.

Policies that ensure efficient pricing of natural resources are a necessary complement to competition policy if a more sustainable food system is to be achieved

Many of the impacts associated with food production and consumption are aggravated by the underpricing of natural resources. Climate change – described by Nicholas Stern as the ‘greatest and widest-ranging market failure the world has seen’ – is perhaps the most obvious example. But much of the world’s agriculture does not pay the true cost of the water it uses. And the biodiversity value of natural habitats is not reflected in their market value. Getting the prices right – ‘internalising the externalities’ – is a key part of moving to a more sustainable food system and making competition work.

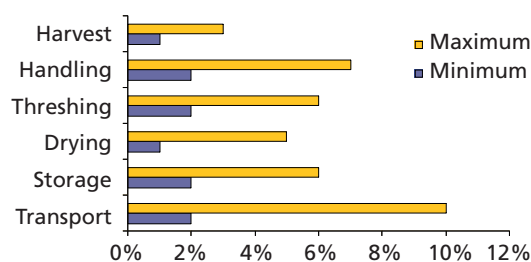
- 32 The retail side of the UK’s food system has seen an increasing concentration of grocery sales in a small number of leading supermarkets. The consequences of this concentration – for competing stores, businesses in the supply chain, and for consumers – have become highly contested. In its recent inquiry into the grocery market, the Competition Commission examined competition between supermarkets, and the practices that they adopt in dealing with suppliers. It found that the market was ‘broadly competitive’ but it also proposed new measures to ensure that there is adequate competition within local grocery retail markets, and to support fair and transparent terms of trade between retailers and suppliers. Analysis suggests that greater transparency and clear terms of contract in the supply chain would not only promote fair business practice but could also reduce over-production, waste and resource inefficiency¹⁴⁹. Competition in the UK market is discussed in more detail in chapter 5.
- 33 More open, competitive markets also provide opportunities for farmers in the developing world to play a part in feeding Britain. Vegetables worth £105 million and fruit worth £89 million were exported to the UK from

sub-Saharan Africa in 2005. It has been estimated that this supported 715,000 growers and their dependents¹⁵⁰.

- 34 For the global food system as a whole, there is a long way to go before basic conditions of competitiveness and efficiency are satisfied. Trade barriers are ubiquitous, mis-pricing of water is widespread and the polluter often escapes without paying. Other market and system inefficiencies result in huge waste. For example, it has been estimated that 10%–37% of rice produced in south-east Asia can be lost after harvest through problems in storage, transport, etc (Figure 3.3¹⁵¹). Competitive logistics and retail markets have strong in-built incentives to reduce such losses.

Figure 3.3: Food and Agriculture Organization research suggests that more than a third of rice harvested in south-east Asia can be lost after harvest

Range of rice harvest lost at each stage



149 Defra (2007) *Report of the Food Industry Sustainability Champions Group on Waste*

150 Natural Resources Institute (2006) *The Production of Fresh Produce in Africa for Export to the UK*

151 Food and Agriculture Organization research from 1997 quoted in World Resources Institute (1998) *Disappearing Food: How big are postharvest losses?*

Public confidence in the safety of food is critical to the proper functioning of the market

- 35** Maintaining and improving current levels of food safety, which are high by historical standards, requires continued vigilance. Past problems with food safety illustrate that public confidence can rapidly be lost, with severe economic consequences for the industry. The number of food poisoning events in the UK cannot be known with certainty because most go unreported, but Health Protection Agency estimates suggest that there are more than 700,000 cases each year in total¹⁵². Food poisoning probably costs the economy more than £1 billion a year. Improving food safety means vigilance on contamination and continual improvement of food hygiene practices, from the farm to the home.
- 36** Microbiological contamination is a chronic problem in the food chain, especially in meat. By some measures the prevalence of severe food poisoning caused by the five main microbes of concern has stopped declining. The science of food safety has yet to provide comprehensive solutions to some of the endemic problems, such as *Campylobacter* on chicken meat.
- 37** Another threat to food safety is posed by banned substances finding their way into food. Foods imported from outside the European Union (EU) are regarded as an area of higher risk (though the number of food alerts is very small when set in the context of overall food imports). Regulators and industry also have to
- be vigilant given the risk of contaminants being introduced within the UK supply chain, whether by accident or with malicious intent.
- 38** In the UK most of these issues are managed by the FSA. Local authority Environmental Health services deal with food hygiene and food safety and trading. Defra has a lead role on pesticide safety and animal health, together with the Devolved Administrations.
- 39** Regulation of the contents of our food is now more rigorous than ever before. There are well established systems, within the UK, in the EU and globally, to test innovative additives, and to assess new evidence about existing ones. The Government is also working with the food industry on security and resilience in the food chain¹⁵³.
- 40** But new regulatory challenges and public debates can be expected as developments in science and technology change what is possible and available in food production, processing and packaging. For example, many private research companies and manufacturers are developing nutraceuticals – extracts of food in the form of pills that have specific health or physiological benefits, e.g. an extract from broccoli to help prevent cancer. Cloning of animals and the application of nanotechnology to food are two recent examples of the potential for the interface of food and advanced technology to excite public and professional interest.

¹⁵² FSA (2007) *Annual Report of the Chief Scientist 2006/07*

¹⁵³ See Centre for Protection of the National Infrastructure, www.cpi.gov.uk/aboutcpi188.aspx

Box 3.2: Case study – An integrated food policy approach in Finland***Improving a nation's diet to improve public health***

In the early 1970s, Finland had the highest recorded coronary mortality in the world and, within Finland, the region of North Karelia had the worst record¹⁵⁴. The typical diet was high in saturated fats and salt, and low in vegetables and fruit. The Government, in collaboration with the World Health Organization, launched a project to target smoking, blood pressure control and diet, focusing on reducing cholesterol levels and salt intake¹⁵⁵. The project developed comprehensive, community-based strategies to change dietary habits, e.g. health information and nutrition counselling for the regional population and collaboration with local groups to distribute healthy, easy-to-prepare recipes to households¹⁵⁶. Health agencies worked with the food industry at the national level to reformulate food, e.g. low-fat dairy and meat products and the reduction of salt in a number of food items. There was also close collaboration between the project and national vegetable oil product manufacturers to produce healthier spreads. Another imaginative initiative encouraged farmers to grow berries, which grow well in the Finnish climate and are known for their valuable nutritional content. After the success of the North Karelia project in changing the diets of the regional population, the rest of Finland was targeted through nationwide nutrition education.

There have been significant changes in the North Karelian and Finnish diet. Over 20 years, fish, vegetable, fruit and berry consumption increased¹⁵⁷. While only 1–2% of people used vegetable oil for cooking in 1972, 34% reported using mainly vegetable oil in 1997¹⁵⁸; salt intake decreased and energy from saturated fats decreased from 21% to 14% over the same period¹⁵⁹. As a result, cholesterol levels decreased 18% over 25 years¹⁶⁰. The health impacts have been considerable. A separate analysis has shown that most of the decline in coronary heart disease mortality can be explained by changes in the target risk factors, and that the reduction in serum cholesterol level has been the strongest contributor¹⁶¹. Heart disease decreased by 65% in Finland between 1971 and 1995¹⁶².

154 Puska P et al (1998) Changes in premature deaths in Finland: successful long-term prevention of cardiovascular diseases, *World Health Organization Bulletin*, 76

155 Puska P et al (1981) *The North Karelia Project: Evaluation of a comprehensive community programme for control of CVD in North Karelia, Finland 1972–1977*, Copenhagen: World Health Organization European Office

156 Puska P et al (2002) Influencing public nutrition for non-communicable disease prevention: from community intervention to national programme – experiences from Finland, *Public Health Nutrition*, 5, 245–51

157 Puska P et al (1981) *The North Karelia Project: Evaluation of a comprehensive community programme for control of CVD in North Karelia, Finland 1972–1977*, Copenhagen: World Health Organization European Office

158 Helakorpi S et al (1998) *Health Behaviour Monitoring among the Finnish Adult Population*, National Public Health Institute

159 Karvinen MJ (1977) Sodium excretion and blood pressure of west and east Finns, *Acta Med Scandinavia*

160 Vartiainen E et al (2000) Cardiovascular risk factor changes in Finland, 1972–1997, *International Journal of Epidemiology*, 29, 49–56

161 Vartiainen E et al (1994) Changes in risk factors explain changes in mortality from ischaemic heart disease in Finland, *British Medical Journal*, 309, 23–7

162 Ibid

Given the evidence on the impact of diet on British public health, a collective effort to speed up the UK's transition to a healthier diet has to be a key focus for policy in the years ahead

- 41** There are huge public health gains and economic benefits to be had from a shift in the nation's diet towards the consumption of more fruit and vegetables, and away from salt, saturated fat and added sugar. Promotion of healthy, balanced diets is an important component of the campaign to tackle obesity. Diet has been linked to coronary heart disease and some types of cancer – the two most common causes of death in the UK today.
- 42** Improving dietary health is, in large part, a challenge of changing behaviours. For the most part the Government has an informing and influencing role, rather than intervening directly in the food market. But it can also encourage cultural change, such as by ensuring that children learn about healthy eating and cookery at school, and through the standards applied to food served in the public sector. An example of an integrated approach to food and health policy from Finland is given in the case study in Box 3.2.
- 43** For adults, policy in the UK has focused on strengthening and harnessing the power of informed consumer choice via information, publicity campaigns, advice and product labelling, and working on product reformulation with the food industry. Restrictions on

advertising foods high in fat, salt and added sugar – and bans on vending such foods in schools – mark the more proactive approach taken to improving children's diets.

- 44** The Government has defined the core agenda to tackle obesity in England in the Healthy Food Code of Good Practice. This identifies further areas for action – such as on non-diet, sugary drinks. On average, children aged between 11 and 18 in low-income households drink between a can and can-and-a-half a day of such drinks¹⁶³. They get about a third of their total added sugar intake in the process¹⁶⁴.
- 45** Looking further ahead, it seems likely that the links between diet and mental health and well-being will acquire greater prominence as the evidence base develops. Incidence of mental health disorders and associated cost to the NHS are rising¹⁶⁵. The impact of omega-3 fatty acids on foetal development and the mental development of children, as well as on their behaviour and performance in school, is one example of where new research is underway.

Consumers and industry look to Government to provide leadership in the drive to create a more environmentally sustainable food chain

- 46** Data on GHG emissions, resource consumption, water pollution and other measures show that the global food chain places significant and unsustainable burdens on the environment. The drive for continuous reduction in these impacts is putting the UK

163 FSA (2007) *Low Income Diet and Nutrition Survey*. Boys (aged 11–18) drank 466 ml; girls (aged 11–18) drank 404 ml

164 Ibid

165 The King's Fund (2008) *Paying the Price: The cost of mental health care in England to 2026*

and the food chain on a path to more environmentally sustainable, 'low-impact' food. Consumers and food chain businesses look to government to take a lead and to put in place the framework within which others can take action. On issues such as sustainable sourcing of fish and GHG mitigation within the food chain, there are opportunities for the UK to take a lead within Europe.

- 47** Key steps on the road to environmentally sustainable food are efficient pricing of resources and making the polluter pay. For example, in many parts of the world agricultural users of water do not bear its full cost, and carbon emissions and other types of pollution are un-priced.

Launching a new integrated statement of future food strategy would provide opportunities to engage the British public in a new conversation about food, and to develop a shared collective vision of what it is we are aiming for

- 48** An integrated statement of food strategy would help to bring greater cohesion to current efforts. Building on the groundwork completed by this report, and within the framework defined by the four strategic policy objectives put forward here, such a statement would provide the basis for a national conversation about how to go about transforming the food system to realise the vision set out at the beginning of this chapter.

Action 3.2: A vision and strategy for food

A clear vision, and a strategy that defines the Government's priorities and purpose across the food system, are needed both to underpin the transformation of the food system and to provide the direction and leadership needed to get there.

This report has laid the foundations of such a vision and a strategy. But the new framework for food outlined here needs to be tested in an open and collaborative process involving the public and stakeholders. The Government therefore plans to launch a process of consultation about the future policy framework for food that is detailed in this report.

The final version of the framework will confirm the Government's strategic policy objectives and set out how the Government will work with stakeholders to achieve the transformation of the food system defined by the vision.

The work will be taken forward by Defra together with the Department of Health and the FSA, and will be completed by the autumn of 2009.

4 Supporting the consumer

- Consumers are becoming more interested in the provenance, quality and other characteristics of the food they eat.
- Reducing the impacts of food production and consumption on health and the environment are key strategic policy objectives for the Government but will require changes in consumer behaviour and in the attitudes, social norms and culture that surround food.
- Improving information and advice can help consumers make better choices for themselves and bring about changes in behaviour. Particular areas requiring improvement include bringing together information and advice about impacts on health and the environment in one place, and extending to food eaten outside the home the sorts of information on provenance and nutrition we now expect from supermarkets and other food retailers for food eaten in the home.
- There are, however, likely to be limits to the extent to which better information and advice can change behaviour, particularly where consumers face complex trade-offs between difficult ethical or environmental outcomes. In these cases there is evidence that consumers expect food retailers and others to help 'edit' food choices on their behalf.
- Community groups, voluntary organisations and social enterprises have an important role to play in supporting activities that promote healthy eating and the sustainable production and consumption of food, in encouraging public debate about food issues, and thus in promoting new social norms that facilitate behaviour and culture change.

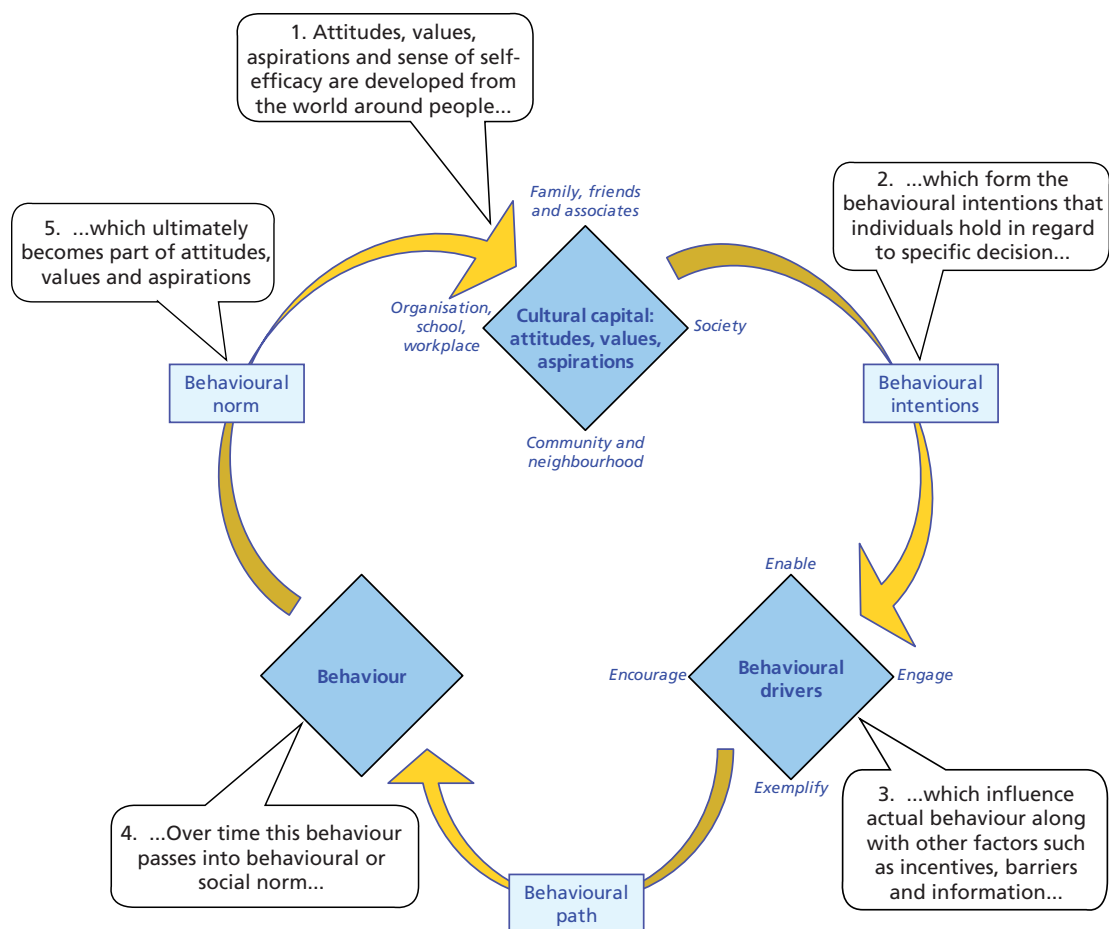
- 1 This chapter examines what the Government can do to accelerate the cultural changes that are under way in social attitudes to food and, in so doing, to help catalyse the transition to a food system founded on safe, more environmentally sustainable food and healthy diets. The Government can do this by:
 - enabling consumers to make informed choices about their diet, supported by comprehensive, straightforward and readily accessible information and advice;
 - working in partnership with food businesses to make choices easier for consumers, such as through improved product labelling; and
 - using the most appropriate communication tools to target key audiences, building on current social marketing techniques.
- 2 The chapter also discusses the role that 'choice editing' can play in enabling consumers to choose healthy, low-environmental-impact food, and the part that community engagement can play in catalysing the transition to healthier diets.

4.1 Food choices – the Government’s role in catalysing change

- 3** UK consumers have become more interested in the provenance, quality, and other characteristics of the food they eat, and the impact it has on their health and on the environment. Food retailers and producers have responded to consumer demands by offering a wider range of food products and choice of shopping formats. For the concerned consumer, factors such as price, ingredients, quality, nutrition, provenance, production, packaging and transportation methods all jostle for position in the four seconds typically taken to choose a product from the supermarket shelf.
- 4** A process of cultural change is at work. Cultural attitudes, values and aspirations relating to food are evolving under the influence of public debate, economics and technology. Consumption choices are changing as a result, aided by the information, advice and incentives that are increasingly widespread. Behavioural norms – such as buying food for its provenance or its health benefits – are strengthening and, as businesses respond to shifts in demand, are changing what is available in the marketplace. Figure 4.1 provides a generic model of the processes and feedback loops at work. The theory and policy implications of this model of change in ‘cultural capital’ are described in greater detail than is possible here in a recent Strategy Unit discussion paper¹⁶⁶.
- 5** Figure 4.1 illustrates two key findings relevant to food policy. First, that ‘cultural capital’ (such as the stock of norms, values and attitudes) associated with food will interact with ‘harder’ behavioural drivers (such as consumer information and the regulatory environment) to drive behaviour. Second, that these attitudes and norms associated with food will evolve over time, under the influence of external factors such as economic trends and technological change and of actual behaviour itself. The role of the Government in such processes is complex and can change over time. By use of complementary policies, the Government can influence behaviours and, in so doing, play a part in modifying social norms.
- 6** The UK Government Sustainable Development Strategy sets out a framework for behaviour change based on the need to **enable**, **encourage** and **engage with** people and communities in the move towards sustainability, recognising the importance of the Government **leading by example**. For food, the toolkit includes levers that:
- **enable** informed choices to be made, e.g. by establishing trusted sources of information such as websites on healthy eating;
 - **encourage** changes in behaviour, e.g. through economic instruments such as trading schemes that put a price on carbon;

166 Strategy Unit (2008) *Achieving Culture Change: A policy framework*

Figure 4.1: An illustrative model of cultural change



- **engage** with consumers directly, e.g. through social marketing campaigns promoting particular behaviours (such as eating five portions of fruit and vegetables a day) and by promoting community-level initiatives that help consumers to adopt a healthier diet; and
- **exemplify** those behaviours, e.g. leading by example by serving healthy, more environmentally sustainable food to hospital patients, school pupils and the millions of public service workers.

- 7 The food system is a stage on which some of the major societal challenges of our time are being played out** – most obviously lifestyle-induced health issues (such as obesity), the collective response to the threat of climate change (both mitigation and adaptation) and the wider search for environmentally sustainable economic growth. The effort to transform the food system here in the UK and elsewhere is potentially a powerful test case of these theories of cultural change and the Government’s role in catalysing the process.
- 8** Behaviour (i.e. personal choices) will need to change over time if the societal challenges such as climate change and obesity are to be addressed, but the Government’s licence to influence these behaviours or limit the options has boundaries. Over time such boundaries may move as social norms change, as happened with seatbelts in cars and smoking, but the process of cultural evolution takes time.
- 9** Debates (and behaviours) that affect the food system are at varying levels of maturity. For example, research suggests that general public awareness of what constitutes a ‘healthy balanced diet’ is higher than the understanding of what diet has a low environmental impact^{167, 168}. Although consumers make a link between food and the environment on issues such as food miles and packaging, most do not yet extend that link to consider the environmental impacts or greenhouse gas (GHG) footprints of producing specific foods such as meat and dairy products^{169, 170}. Given the fast pace at which research in this area has been moving and the complexity of the issues that are being uncovered, this lag is understandable.
- 10** Part of the Government’s role is to help separate the important messages from the ‘noise’ around food. Outside the store, consumers are bombarded by information as dietary fads come and go, industry, scientists and non-governmental organisations (NGOs) offer a succession of claims and counter-claims, and periodic Government and international reports add new analysis. It can be hard to fathom what constitutes a good, balanced diet – from a health, environmental, ethical or other perspective – when each new study reported in the media can seem to contradict the previous one.
- 11** Information has a key role in helping to shape the ambient environment in which cultural change takes place (through the media, national debates, etc) and at the point of choice – in the supermarket, canteen or restaurant. Potential information-related barriers to change include a lack of available information at the time and place where it is most useful, a reluctance by consumers to trust the source of the information, and an inability by consumers to understand fully what is being communicated:
- **Missing information.** Information on the nutritional and environmental attributes of food, especially food eaten out of the home, is not always readily available. In some cases it is available on the food manufacturer’s website or from staff on request, but this does not necessarily make it easy to choose

167 FSA (2008) *Consumer Attitudes to Food Standards: Wave 8*

168 Opinion Leader Research (OLR) (2007) *Public Understanding of Sustainable Consumption of Food*, Defra

169 Ibid

170 Ipsos MORI (2008) *Sustainability Issues in the Retail Sector*

healthier or more environmentally friendly food. There can also be time lags between the arrival of an 'issue' on the food policy agenda and the development of labels and data that can inform consumers about it – carbon labelling being a recent example.

- **Accessibility.** Nearly one in three consumers find nutritional food labels hard to understand¹⁷¹, and fewer than half of those questioned in a separate survey understood the carbon labels that were introduced in 2007¹⁷². This suggests that, alongside labels, other measures need to be considered in order to change behaviour.
- 12 There is sometimes a gap between what people say they want to do and what they do in practice (e.g. eating enough fruit and vegetables). Food choices are based on complex interactions between individual preferences, social and cultural norms, and economic factors. As citizens, people may be concerned about the health and environmental impacts of their food, but when faced with an array of products on the supermarket shelf, and with pressure to get dinner on the table, their intentions may not always be met.
 - 13 Some consumers may not want detailed information about their food or, when presented with it, may simply choose to ignore it¹⁷³. 'Habit bias' means that we often have entrenched patterns of behaviour which are hard to change, even if new information comes to light, and 'attribution bias' can lead people to underestimate things that are quite likely to occur (such as the impact of poor dietary choices on health¹⁷⁴). The Government

can use information and engagement approaches (including raising awareness and social marketing) to make individuals aware of the costs and benefits of their choices.

- 14 The social context to choice and behaviour also points to a need for a more sophisticated approach. Social marketing offers a vehicle for this, by basing communication with consumers on a deep understanding of the psychology that drives behaviours.
- 15 This chapter now looks at measures that enable and engage consumers to make healthy, low-impact food choices.

4.2 Enabling informed food choice through consumer advice

- 16 For consumer choice to be as informed as possible, information must be based on robust evidence, be accessible and comprehensible, and address the issues of concern. The Government has a key role in supporting and interpreting the research that provides the foundation for robust advice, and in helping to develop trusted sources of consumer-facing information that are accessible and reliable.

Government is an established source of advice on healthy eating, but not yet on the environmental impacts of food choices

- 17 The Government is a key source for consumers seeking advice on healthy eating, but surveys suggest that consumers trust advice from

171 FSA (2008) *Consumer Attitudes to Food Standards: Wave 8*

172 Mintel (2008) *Food Labelling*

173 FSA (2008) *Consumer Attitudes to Food Standards* (28% of consumers never or rarely refer to labelling information; 20% occasionally do)

174 Strategy Unit (2008) *Achieving Culture Change: A policy framework*

the Food Standards Agency (FSA) more than that produced by either the food industry or central government¹⁷⁵. On the environment, consumers tend to receive information from retailers and the media¹⁷⁶.

18 The Government has already taken important steps to enable consumers to eat low-environmental-impact, safe food and healthier diets. For example, it has developed online and other sources of advice on dietary health, the environmental aspects of food, and food hygiene:

- The FSA's Eatwell website¹⁷⁷ offers comprehensive dietary advice focusing on the nutritional aspects of diet. It includes advice on dietary requirements at key life stages, food allergies and food safety.
- The NHS Choices website¹⁷⁸ covers a wide range of health-related topics. The dietary section mirrors the advice provided by the FSA's Eatwell website but does not contain as much detail. Additional material is provided on diet-related illnesses and for those trying to lose weight. The NHS has a further website dedicated to the 5 A DAY campaign.
- The Department for Environment, Food and Rural Affairs (Defra) provides information on the environmental impact of food choice via the Directgov website¹⁷⁹. Topics range from food waste to local and seasonal food, but

information is limited to headline messages. Consumers are directed to third-party websites for more specific advice.

- Instigated by local authorities, piloted by the FSA and mentored by the Local Authorities Coordinators of Regulatory Services (LACORS), 'Scores on the Doors' is a scheme that makes information about food businesses available to consumers. Using information from environmental health food hygiene inspections, the scheme gives each café, restaurant or fast food outlet a rating based on the inspection's findings. Food outlets can then display their rating in their windows for consumers to see (Figure 4.2). Information on all food businesses in the area is also available on the scheme's website and on mobile phones¹⁸⁰. Evidence demonstrates that providing consumers with food hygiene scores has motivated food businesses and significantly improved their hygiene standards¹⁸¹.

Figure 4.2: Some local authorities use different approaches to scoring (e.g. gold/silver/bronze or red/amber/green) but 85% use a five-star rating



175 FSA (2008) *Consumer Attitudes to Food Standards: Wave 8*

176 Ipsos MORI (2008) *Sustainability Issues in the Retail Sector*

177 www.eatwell.gov.uk

178 www.nhs.uk/livewell/goodfood/Pages/Goodfoodhome.aspx

179 www.direct.gov.uk/en/Environmentandgreenerliving/GreenerShopping/DG_064434

180 www.scoresonthedoors.org.uk (run by Transparency Data Ltd)

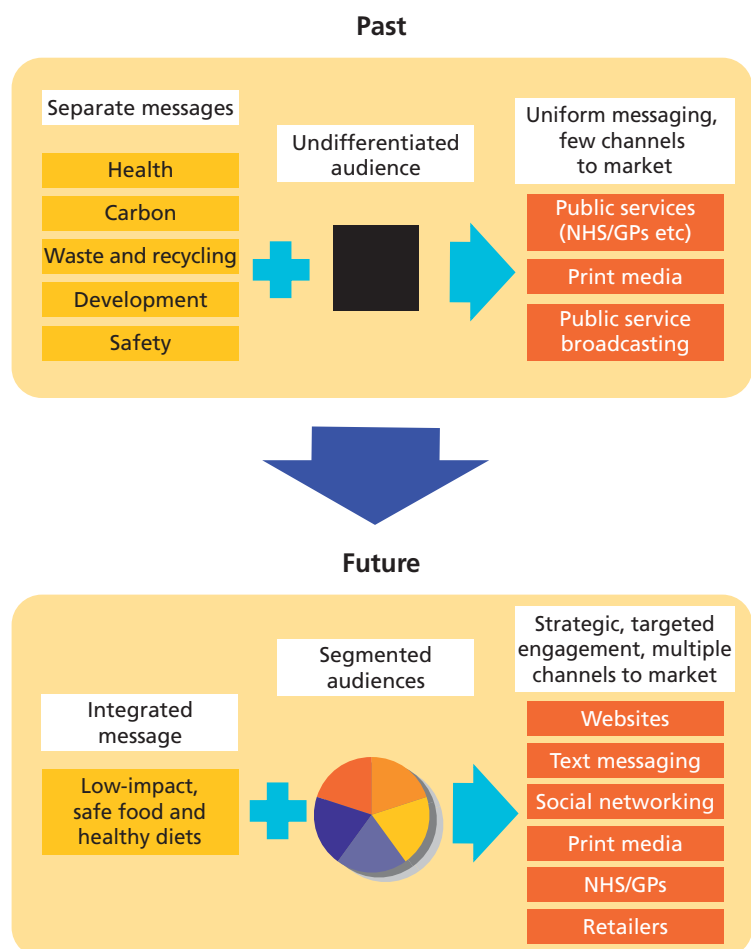
181 www.food.gov.uk/safereating/hyg/scoresonthedoors/

Government can better support informed consumer choice by providing a set of more integrated messages on a safe, healthy, low-impact diet

19 The Government's online advice to consumers on food is currently distributed across different websites which tend to provide advice on single aspects of food. In the absence of a joined-up approach, opportunities to coordinate advice and information are sometimes missed.

20 Given the challenges ahead and the changing nature of the food debate, a more integrated approach is needed which does a better job of combining the health, food safety, nutrition and sustainability aspects of food choice (Figure 4.3).

Figure 4.3: Government communications on food are in transition from undifferentiated, single-issue messaging to targeted and integrated messaging based on good consumer insight



- 21 The FSA and Defra have already begun a review of advice on fish consumption, aiming to provide dietary advice that takes nutrition, sustainability and food safety into account. The work is due to be finalised early in 2009. The potential tensions between dietary advice to consume fish and real concerns about over-exploitation of many of the world's fish stocks illustrate the complexity of the issues and highlight the need for integrated advice.

Action 4.1: Making it easier for consumers to access information on a healthy diet based on safe, low-environmental-impact food

Working with other government departments, the FSA will expand the focus of its current advice from nutrition to include broader issues about the sustainability of food production and consumption. The objective will be to give consumers the best available information on what constitutes a healthy diet based on safe, low-impact food.

4.3 Enabling informed choice through product labelling

Food labels play an important role in helping consumers to make informed purchasing decisions

- 22 Alongside integrated and targeted information on healthy and sustainable food choices, product labelling has emerged as an effective method of enabling consumers to make informed choices. EU legislation stipulates the

information that must be provided on a label (e.g. name of food, ingredients), and some standards (e.g. organic) are enshrined in law. Voluntary schemes have also been developed by the food industry and NGOs. They typically fall into two categories:

- labels that give information on the **content of the product**, e.g. nutritional values, contribution to daily guideline amounts, etc; and
- labels or logos that signal a particular **approach to production** that goes beyond the minimum legal standard – such as for farm or fishery management, or a certain standard of animal welfare. These types of scheme enrich the range of choices available to consumers, providing the opportunity to support particular types of food producer and production values. The trend is a positive sign of the market responding to consumer demand.

Front-of-pack nutritional labelling is influencing shopping patterns and driving product reformulation

- 23 The UK has led the world in the development of front-of-pack nutritional labelling for foods. Consultations conducted for this project suggest that this labelling (which sits in a cultural environment that is now more attuned to health concerns) is influencing consumer shopping patterns and helping to accelerate the reformulation of foods by the industry. Shifting the retail market towards foods that are lower in fat, salt and added sugar through

informed choice and product reformulation by manufacturers is very important in a context where much of the food that people eat is pre-prepared.

- 24** The Government has stated its support for colour coding ('traffic lights') because research commissioned by the FSA has found that, of the various approaches, this is most likely to influence consumer choice – especially among lower socio-economic groups. To move the debate forward, research into the three main front-of-pack approaches is under way to evaluate the impact of front-of-pack signpost labelling schemes on consumer knowledge and purchasing behaviour.
- 25** Amid the discussion of the merits of different approaches, it is important not to lose sight of the impact that better front-of-pack labelling is having on stimulating healthier food choices and driving the product reformulation taking place in the food industry.
- 27** But whether it is a lunchtime sandwich or a canteen lunch, a weekend pub meal or a restaurant dinner, UK consumers are eating out more than ever. Almost 30% of household expenditure on food is now allocated to eating outside the home. Looking ahead, **food eaten outside the home is set to have a more prominent place in the debate about health and environmental issues in the food chain.**
- 28** The food service sector is very diverse, from staff canteens and high street 'fast food' chains to high-end restaurants. What is possible and appropriate will vary from place to place. But engagement with caterers and major food chains on issues such as nutritional information and product reformulation could have a powerful and positive impact.
- 29** A positive approach to increasing the availability of healthy food options is being taken in Scotland (see case study in Box 4.1).

There is a strong case for looking at how to make it easier for consumers to make healthier choices and be informed about food provenance when eating out of the home

- 26** The focus of much of the food debate and public policy attention in recent years has been on food retailing. With food retailing accounting for the much larger share of food consumed, and with retail food sales concentrated in relatively few firms, this has been an efficient means of driving change.

Action 4.2: Making it easier for consumers to make healthy choices when eating out

The FSA will expand its work programme with food businesses and consumers to:

- understand what nutritional information consumers would find helpful when eating out; and
- help food businesses to improve the nutritional status of the food served.

Box 4.1: Case study – *Healthyliving* Award in Scotland’s restaurants, cafés and canteens
Providing healthier food choices when eating out in Scotland

Scottish men and women have the highest premature mortality from coronary artery disease in the world and high rates of stroke and diet-related cancer. The link between high levels of cholesterol and specific fats in the diet is well established¹⁸². The Scottish Executive created the *healthyliving* award as part of its ‘healthyliving’ campaign. The award recognises caterers that serve healthier food and provide ways to help their customers make better food choices¹⁸³.

The aims of the *healthyliving* award are to:

- ensure that caterers serve generally healthier food by making broad changes to how food is prepared, therefore having an impact on all customers regardless of their food choice; and
- clearly identify healthier food choices – called *healthyliving* choices – which have been prepared using both healthier ingredients and cooking methods, thus enabling customers to make an informed choice.

The award, launched in 2006, is managed and delivered by the Scottish Consumer Council and funded by the Scottish Executive. The award, valid for two years, is open to all kinds of catering places, from sandwich shops to staff restaurants. Registration, assessment, advice and resources are free. All establishments registering with the *healthyliving* award must give consent for the *healthyliving* award team to obtain details of their most recent food hygiene inspection from their local authority environmental health service. There are three stages to the assessment process:

1. Assessment: Caterers fill in a self-assessment form which asks questions about menus, food preparation and serving, e.g. on the levels of fats and oils used, particularly saturated fats. Establishments that do not currently meet the criteria need to make changes before they can apply for the next stage.
2. Assessment visit: An assessor looks at the food on offer, including the *healthyliving* options, and speaks to the head chef and catering managers about whether the award conditions are being met.
3. Confirmation: Successful applicants agree to the terms of the award, e.g. complying with quality assurance visits to ensure that standards are met. Unsuccessful applicants are given feedback including areas for improvement.

To date, more than 870 catering establishments have registered and over 320 have achieved *healthyliving* awards, and are using the ‘apple’ logo on menus.

182 Scottish Office (2006) *Report of the Working Party to the Chief Medical Officer for Scotland*

183 www.healthylivingaward.co.uk/healthyliving_award.asp

A number of new labels covering different issues are in development, but there are questions over the limits to labelling as a tool for change

30 New labels are being developed and introduced to the market in response to consumer demand for more information, and as a tool to encourage behaviour change. One example is a label developed by the British Retail Consortium and the Government's Waste and Resources Action Programme (WRAP) to signpost the recyclability of packaging. The label (Figure 4.4), developed in response to consumer demand, is intended to drive up packaging recycling rates by signalling whether or not a product's packaging is collected for recycling. It is also hoped that, by giving consumers this additional information, the amount of non-recyclable packaging thrown into recycling bins will be reduced.

31 With consumer concern about climate change rising rapidly, there has been considerable interest in the concept of labelling products with details of the carbon emissions associated with their production. The Carbon Trust is working with a number of companies, including food manufacturers and retailers, to pilot a carbon reduction label which gives a measure of a product's 'carbon footprint' from source to store (Figure 4.5).

Figure 4.4: A new logo to explain the recyclability of food products will be launched later in 2008

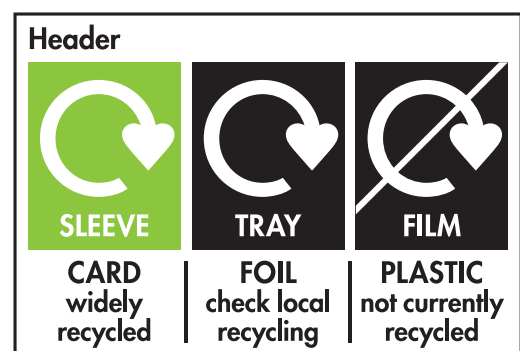


Figure 4.5: The Carbon Trust is working with a number of companies to trial a new carbon reduction label

**working with
the Carbon Trust**



per product

- 32** The British Standards Institution, in partnership with Defra and the Carbon Trust, is developing a Publicly Available Standard (PAS 2050) for assessing life-cycle GHG emissions of goods and services. It is intended that, when complete, the standard will provide a consistent and comparable approach to the measurement of embodied GHG emissions across different sectors, including the food chain. Companies using the standard will be able to identify processes with a high carbon footprint and then work to reduce their impact.
- 33** Audit and analysis of GHG-intensive processes in product supply chains is clearly vital if the food industry is to be able to make informed abatement investments. It is less clear, at present, whether consumers will ever regard carbon labels as a helpful means of choosing among competing products. Research by the Carbon Trust in 2006 found that 66% of consumers wanted this information, but other studies have found that consumers expect industry and the Government to edit environmental problems out of the production process before the products reach the shelf. Trials of on-pack carbon labels, such as that launched by Tesco, will inform the debate.

4.4 'Choice editing' may be part of making sustainable food choices easier for consumers

- 34** The sheer variety and choice now available bring complexity and trade-offs – is it 'better' to buy local food out of season or produce

air-freighted to the UK from overseas; the more expensive free-range chicken or its cheaper but 'lower-carbon', intensively reared cousin? There are clearly limits to the extent to which labels are a solution, given the multitude of issues now attached to food. The market is free to experiment with labels, but there is a risk that a proliferation of labels and logos could cause consumer confusion and information overload.

- 35** There is some evidence that consumers are looking to retailers to make some of the more difficult environmental and ethical trade-offs on their behalf¹⁸⁴. In one survey, 60% of consumers thought that retailers should make it easier for them to make sustainable choices by introducing higher standards in some product areas¹⁸⁵.
- 36** Many retailers and food manufacturers are already applying environmental or ethical screening criteria that go beyond legal minimum standards. These are often defined in the form of assurance schemes that set out criteria on issues such as animal welfare, farm management and labour relations. Under such schemes, all variants of a given type of product are produced to a given standard, often recognised with a particular label. For example, the Red Tractor logo is applied to produce that meets the standards agreed by Assured British Standards for food producers and manufacturers. And the LEAF Marque is a farm assurance standard for a 'whole farm approach' which links environmental standards to more efficient methods of production¹⁸⁶.

¹⁸⁴ OLR (2008) *Public Understanding of the Sustainable Consumption of Food*, Defra

¹⁸⁵ Ipsos MORI (2008) *Sustainability Issues in the Retail Sector*

¹⁸⁶ www.leafuk.org

- 37** There are many examples of such screening, or ‘choice editing’, being applied in the marketplace:
- Waitrose and Sainsbury’s sell only Fairtrade¹⁸⁷ bananas;
 - Marks & Spencer and Waitrose sell only free-range eggs;
 - by 2010, all tea plantations supplying tea for PG Tips (a Unilever brand) will be Rainforest Alliance Certified¹⁸⁸;
 - a number of major supermarkets and food manufacturers have made commitments to source fish from stocks that are recognised as being sustainably managed, through certification by schemes such as that of the Marine Stewardship Council (MSC); and
 - Tesco has introduced its own farm management scheme, Nature’s Choice, which sets environmental standards and specifies shape, size, taste, variety and shelf life requirements for its products¹⁸⁹.
- 38** The Sustainable Consumption Roundtable – an advisory group hosted by the National Consumer Council and the Sustainable Development Commission – defined choice editing as ‘pre-selecting the particular range of products and services available to consumers’¹⁹⁰. An example would be a retailer’s withdrawal of the option for its customers to purchase eggs from caged birds. Editing food choices can be a complex and contentious issue. It can attract charges of ‘nannying’ and can seem to contradict the agenda of informed consumer choice.
- 39** But retailers edit the choices available to consumers by default. With numerous products in the market and finite shelf space available in the store, a retailer has to choose which products to stock and how much shelf space to give them. The basic rationale for choosing particular products has a firm commercial basis. The retailer’s positioning against its competitors, and criteria relating to its corporate social responsibility agenda, may also come into the mix.
- 40** Consumers, together with NGOs, can create demand for products with particular health, ethical or environmental attributes, and can shift retailers’ stock patterns. Additional criteria can, in this way, feed into the ‘editing’ process. What is less common, and intrinsically more difficult, is ‘editing’ product choice on criteria about which consumers are indifferent, as they will not be prepared to trade-off such criteria against price or some other measure of performance.
- 41** The Government’s role is to do its part in informing consumers of the evidence on impacts and issues of concern, providing clear information based on robust evidence, and so helping to illuminate and shape the debate.
- 42** Fish is a part of the food market where there seems scope for greater action by the industry to edit choices in favour of sustainably managed stocks. The UK has been a lead market for sustainably sourced fish, but this still has a very small market share¹⁹¹. In the past there were few stocks certified to the MSC or equivalent schemes – supply was very limited. But in

¹⁸⁷ www.fairtrade.org.uk

¹⁸⁸ www.rainforest-alliance.org

¹⁸⁹ www.tescocorporate.com/sourcingproducts

¹⁹⁰ Sustainable Development Commission and the National Consumer Council (2006) *I Will If You Will: Towards sustainable consumption, Sustainable Consumption Roundtable report*

¹⁹¹ Marine Stewardship Council, direct communication

recent times the MSC has seen a rapid increase in the number of stocks certified or preparing for certification. This includes UK fisheries.

- 43 With supplies of sustainable fish now increasing, there is a compelling case for food retailers, manufacturers and caterers to source only wild-caught fish from stocks recognised as being sustainably managed.**

4.5 Engaging people in the great food debate

- 44** 'Engagement' describes a spectrum of activities in which the Government, stakeholders and the public participate in constructive debate and action to address complex issues¹⁹². These include national and sub-national citizens' juries, citizens' summits, focus groups and online fora. For example, the FSA ran a citizens' jury in 2003 examining whether genetically modified food should be available to buy in the UK¹⁹³.

- 45** Engaging consumers using social marketing techniques can promote new or adaptive forms of behaviour. Successful social marketing campaigns, such as those on smoking cessation and drink driving, are based on a sophisticated understanding of the psychology that drives behaviours. This is particularly relevant to food because of the complex interaction between social, cultural and economic factors in making food choices.

- 46** Community activities, such as volunteering at community allotments or manning fruit and vegetable stalls as part of a cooperative are another means of engaging people in food-related activities. This local engagement often reaches some of the most disadvantaged and hard-to-reach members of society; it also achieves indirect benefits such as building community support networks, enabling participants to gain new and transferable skills and regenerating areas of derelict land.

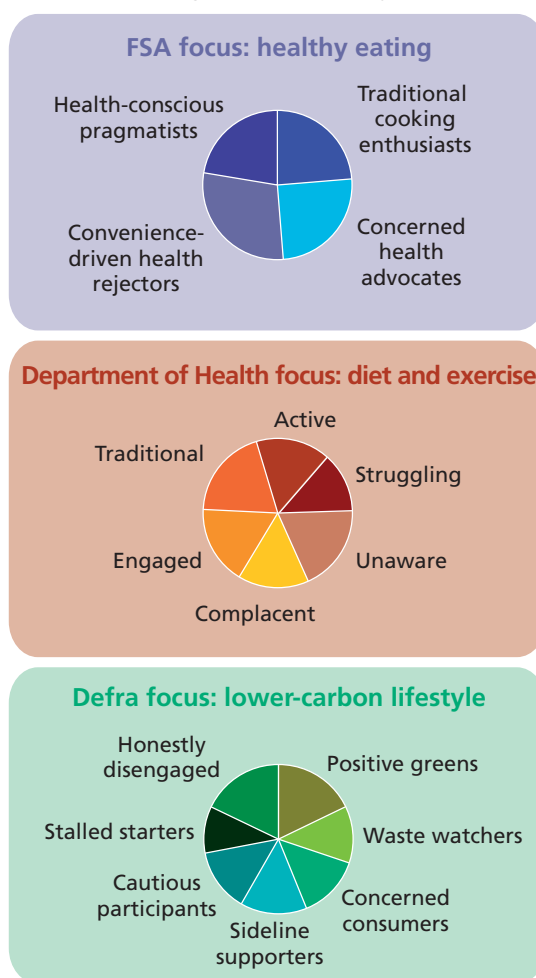
Smarter use of social marketing tools could allow more effective targeting and delivery of 'joined-up' messages to consumers

- 47** For government communications on food to have an impact, messages need to be well targeted and be based on good customer insight (Figure 4.6). There is increasing interest across government in the application of social marketing approaches to help achieve this – to focus the development of strategies, policies and communication campaigns on the needs of consumers. Social marketing involves the systematic application of marketing techniques and approaches to achieve behavioural goals.

¹⁹² Sustainable Development Commission (2007) *Position on Engagement*

¹⁹³ www.food.gov.uk/gmdebate/citizens_jury/

Figure 4.6: Combining the three audience segmentation models developed by different government departments could allow messages on food to be targeted more effectively



- 48** The Government is using food-related campaigns to help raise awareness and encourage behaviour change:
- It is investing in marketing campaigns on healthier eating, such as the FSA campaign on reducing salt intake and the NHS's 5 A DAY campaign.
 - In 2008 it announced a £75 million investment in a three-year social marketing programme aimed at informing, supporting and empowering parents to make changes to their children's diets and levels of physical activity.
 - WRAP's Love Food Hate Waste campaign is raising awareness of the environmental impact of the 6.7 million tonnes of food, much of which could still be eaten, that is thrown away each year in UK homes.
- 49** Three departments with significant direct interest in food issues (Defra, the Department of Health and the FSA) have each developed audience segmentation models based on different elements of consumers' lifestyles (Figure 4.6). Attitudes and behaviours towards food and diet form part of these models. The Department for International Development is developing similar approaches for communicating with the public on development issues.
- 50** Emerging analytical techniques will allow these segmentation models to be merged, creating a model of consumer attitudes and behaviour towards a healthier diet with a lower impact on the environment. This combined model will then allow specific messages on food and diet to be targeted more effectively.

- 51** Important lessons can also be learnt from consumer research on how advice is delivered. For example, recent research suggests that advice to cut down on meat and dairy products because of their high environmental footprint is unlikely to resonate with consumers. Focusing instead on consumers' aspirations for healthy eating is more likely to effect changes in consumption.

Action 4.3: Aligning marketing and communications campaigns on key messages

The Food Strategy Task Force, which will be established to drive forward all the proposals in this report (see chapter 7), will ensure that consumer engagement on food-related issues is well aligned across the Government, and that communication campaigns are coordinated.

Creating 'safe spaces' for debate could help raise the profile of, and may help resolve, some of the key problems with food where there are few simple solutions

- 52** Debates on food-related issues often move quickly and can sometimes get ahead of the evidence base. New studies on issues such as food safety, health and environmental impact are often given publicity in the media. In the absence of clear Government advice or information, oversimplified issues can cause consumer confusion about 'the right thing to do'. However, the evidence base is often difficult and time-consuming to obtain. On questions relating to human health or environmental impact, relevant controlled experiments are rarely possible.
- 53** In the same way as technological innovation helps to expand the realm of what is practically feasible, cultural change and open discussion of 'difficult issues' can help expand the scope of current understanding, unpacking controversial food-related issues 'ahead of the curve'. The role for the Government is to facilitate these debates rather than necessarily to lead them. Current issues that would be useful to explore include the health and environmental aspects of meat and dairy consumption, and the use of technology in food and food production.

Farmers' and street markets offer an alternative retail experience and a different form of engagement with food

- 54** The resurgence of interest in food in UK society is epitomised by the growth of the farmers' market movement. This sits alongside food fairs, demand for allotments and the emergence of local 'food clusters' as indicators of a renaissance in our food culture. These trends are seen by some as not just indicative of a renewed interest in the provenance and quality of food, but representative of an alternative food system that co-exists with 'conventional' systems of farming, food manufacture and retail.
- 55** For consumers, farmers' markets offer an opportunity to escape the familiar retail experience offered by the large supermarkets. For producers, they are an opportunity to gain a premium for unique, artisan, home-produced foodstuffs which they may not be able to sell to major retailers owing to scale issues and the process of supermarket buying.

56 Street markets can be an important source of affordable, good-quality food including fresh fruit and vegetables. They can be significantly cheaper than supermarkets and so provide access to good-quality fresh food to those on low incomes. But street markets across the UK are generally seeing fewer shoppers and lower

stall occupancy rates. The decline has been attributed to various factors: the growth of supermarkets and discount stores; a lack of affordable parking close to the markets; a perception that they sell lower-quality food; a lack of investment in infrastructure; changing trends in food shopping; and increased rents.

Box 4.2: Case study – Manchester Community Food Market, Northenden
Providing a food market for all

A new food market designed to appeal to shoppers of all incomes has been established in Manchester. The market was started as a pilot project in October 2007 in the Northenden district of Manchester¹⁹⁴. The area includes some of the more deprived wards in Manchester, but it also includes wealthier residents. In addition, the Northenden area had very limited food retail outlets available. Following a successful pilot phase, the market now operates on the first Saturday of each month. Around 30 stalls offer a wide range of products, including cheese and dairy, fresh fruit and vegetables, bread and bakery products, meat, olives and confectionery.

A number of issues had to be resolved in order to introduce a new community food market into an urban area.

- Attracting traders – the demographic profile of the area did not appear to support a premium product farmers’ market, where prices tend to be higher than retail food markets. It was decided to combine some farmer-producers with traditional retail market food traders – the first time this approach had been taken in Manchester. Partnership working with the National Market Traders Federation and North West Fine Foods (an organisation representing specialist regional producers) to generate interest from potential vendors proved successful.
- Local customer support – a 1,000-signature petition had been received in support of the market. Building on this, an extensive marketing and PR campaign was launched utilising local press and radio, combined with the distribution of posters and flyers.
- Local retailer support – extensive consultation took place with all the adjoining high street retailers in advance of the market launch. This was successful, with local businesses seeing the market as increasing footfall and supporting the regeneration of the area.
- Location – use of the space allocated to the market required temporary road closures. Manchester Markets, who are responsible for the strategic and operational management of Manchester’s markets, also worked closely with ward and regeneration officers from the city council to ensure that formal applications for stalls were completed on time.

The market’s success is clear, as demonstrated by the number of shoppers who attend the market and its financial success. Responses from customers, market traders and retailers have been extremely positive¹⁹⁵. A survey conducted towards the end of the pilot phase found that:

- 100% of market traders expressed a desire to continue;
- 100% of local businesses surveyed supported the market;
- 94% of shoppers said they would return to the market;
- 92% of shoppers interviewed had purchased an item; and
- 50% of shoppers came from Northenden, the rest from surrounding wards.

¹⁹⁴ Manchester City Council (2007) *South Manchester Farmers’/Specialist Market Evaluation Report*

¹⁹⁵ Manchester City Council (2008) *Northenden Food Market Review: briefing note*

57 The success of farmers’ and specialist markets and revitalised large city markets provide models for greater local engagement with fresh, affordable food and highlight an opportunity to modernise or develop new food retail markets. Cities and towns can, through their planning policies and food strategies, support farmers’ markets and traditional street markets by:

- identifying sites for markets, especially sites with good links to local transport infrastructure;
- promoting markets and access, and challenging restrictions that limit signage for shoppers about opening times; and
- looking at easing parking restrictions near markets to increase access.

The case study in Box 4.2 details a successful community food market in Manchester.

Diverse and innovative community food projects are increasing access to healthy food, improving understanding of nutrition and regenerating run-down areas through food production

58 Community engagement on food is a success story. Knowledge and understanding of local problems, innovative ideas, and the commitment of volunteers to make a difference are tackling big problems such as health inequalities, social exclusion and local environmental degradation by reconnecting people with good-quality, healthy food.

59 At a community level, voluntary organisations are attempting to resolve local problems through food projects such as:

- increasing access to fresh fruit and vegetables through food cooperatives, community transport and social enterprises such as fruit and vegetable stalls;
- improving cooking and food hygiene skills through lunch clubs and basic home economics training; and
- promoting knowledge of healthy eating through growing fruit and vegetables on community allotments, often bringing land in need of regeneration back into community use.

60 Food projects lend themselves well to the social enterprise model. A social enterprise is a business with primarily social objectives. Its surpluses are mainly reinvested in the business or in the community to meet those objectives, rather than being driven to maximise profit for shareholders and owners¹⁹⁶. The Government indicated its commitment to supporting social enterprises, many of which tackle entrenched social and environmental challenges¹⁹⁷, in the *Social Enterprise Action Plan*.

61 Funding to help social enterprises get established and expand, including risk capital funding, is available from the Government (e.g. via the Office of the Third Sector and the Department of Health), the Big Lottery Fund, and private sector partnerships such as those managed by the Bridges Community Development Venture Fund¹⁹⁸. The Government has also provided £5.9 million over four years, in addition to funding from Regional Development Agencies, to improve business advice and information on setting up and running social enterprises via Business Link¹⁹⁹.

¹⁹⁶ Office for the Third Sector (2006) *Social Enterprise Action Plan: Scaling new heights*

¹⁹⁷ Office for the Third Sector (2007) *Social Enterprise Action Plan: One year on*

¹⁹⁸ www.bridgesventures.com

¹⁹⁹ www.businesslink.gov.uk/trysocialenterprise

5 Engaging the supply chain

- The food supply chain is a key partner in the delivery of the Government's strategic policy objectives for food.
- Well-functioning, open and competitive markets should provide fair prices for consumers and a fair deal throughout the supply chain. Reducing distortions in agricultural trade would create a more efficient world market for food and a fairer platform on which to build a more sustainable food system.
- There is no room for complacency about food safety. Smarter approaches are needed to ensure that interventions focus on the highest risk points in the food chain.
- The Government needs to look at how European Union (EU) regulations on genetically modified (GM) products are interacting with changes in the international markets for animal feed, and the future impacts on consumers and producers.
- The Healthy Food Code of Good Practice provides a framework for industry and government action to promote healthier eating. In view of the evidence of its importance for diet and health outcomes, making further progress with the 5 A DAY campaign to increase average daily consumption of fruit and vegetables is a priority, particularly for young men and families on low incomes.
- On-farm greenhouse gas (GHG) emissions are set to be the focus of increasing attention, creating significant challenges and opportunities for European farming, which the Government can help UK agriculture to prepare for.
- A clearer picture is needed of how to address the twin challenges of global food security and climate change, looking forward to 2050. The Government will commission a major new study to examine how the global food system will need to evolve to, adapt to, and mitigate its climate change impacts.
- England needs a packaging waste management system that does more to encourage prevention of packaging waste and to support the recovery and recycling of such waste from households and businesses.
- UK consumers spend £10 billion a year on food that they throw away – an average of £420 per household. Eliminating household food waste would deliver major benefits, including a GHG savings equivalent to taking one in five cars off UK roads. There are simple, practical things that can be done by families to reduce the food that they waste, including storing fresh produce in the fridge. And collectively we should make a greater effort to extract renewable energy from what remains.

1 Chapter 3 identified that the Government's four strategic policy objectives for food should be to secure:

- fair prices, choice, access to food and food security through open and competitive markets;
- continuous improvement in the safety of food;
- the changes needed to deliver a further transition to healthier diets; and
- a more environmentally sustainable food chain.

2 This chapter examines what these objectives mean for the Government's engagement with the food chain – for its leadership, as partner and as regulator. Food chain businesses are key partners in the drive to transform the food system towards the vision laid out in chapter 3. And a healthy food chain supports growth and employment in the economy as a whole.

5.1 Well functioning, open and competitive markets are the best means of securing fair prices for consumers and fair dealing along the supply chain

3 Trends in food markets have greatly benefited consumers over the past 10 years, notwithstanding the recent boom in global commodity prices. Between 1998 and 2006, food price inflation was half that of general price inflation in the UK economy.

4 But consolidation in the food sector, together with the intense price and productivity pressures on producers arising from low or falling world food prices, has kept the issues of competition, consumer choice and suppliers' market access to the fore. In the food retail sector, four supermarket firms now account for an estimated 75% of grocery sales²⁰⁰. In 2004 the largest 3.8% of food manufacturing firms in the UK generated 76.5% of the sector's output. Public concern about the increasing concentration of business in the manufacturing and retail sectors relates both to competition across markets (e.g. between supermarkets and convenience stores), and down through the supply chain (from retailers, wholesalers and distributors, to manufacturers and farmers).

5 In 2006, the Office of Fair Trading (OFT) referred the market for the supply of groceries by retailers in the UK to the Competition Commission for investigation under the Enterprise Act 2002. In the ensuing investigation, the Commission found that competition among retailers with buyer power can lead them to transfer excessive risks or unexpected costs to their suppliers, in the hope of gaining a competitive advantage. The Commission found that this is likely to lessen suppliers' incentives to invest in new capacity, products and production processes and if unchecked, these practices would ultimately have a detrimental effect on consumers²⁰¹. The Commission concluded that current arrangements intended to regulate the conduct of the four largest grocery retailers, the Supply Code of Practice, appeared to be constraining the exercise of buyer power to some extent.

200 TNS, April 2008. Data include non-food items

201 Competition Commission (2008) *The Supply of Groceries in the UK Market Investigation*, paragraphs 9.82–9.87

The Competition Commission is pursuing a series of measures to regulate business practices in the groceries supply chain and to promote competition in highly concentrated local markets

- 6 The Commission's recently published report²⁰² includes measures such as:
- a new Groceries Supply Code of Practice (GSCOP), which will apply to all retailers with UK groceries turnover of over £1 billion per year. The GSCOP will: prohibit outright retrospective changes to agreed terms of supply; include a 'fair dealing' provision; require retailers to make certain improvements to their internal processes; and require affected retailers to automatically provide suppliers with information on contractual terms, rights to complain and details of the dispute resolution procedure; and
 - the establishment of a GSCOP Ombudsman, who would have the power to gather information and proactively investigate retailers' records, and whose role would include arbitration of disputes between retailers and suppliers, and publishing guidance on specific provisions of the GSCOP. The Commission has recommended to the Government that it should take steps to establish such an ombudsman if retailers do not undertake to do so within a reasonable period.
- 7 The Commission also noted that issues of buyer power and the transfer of excessive risks and unexpected cost were not unique to

supermarket–supplier relationships, and are prevalent elsewhere in the groceries supply chain. It suggested that the Government – specifically the Department for Environment, Food and Rural Affairs (Defra) and the Department for Business, Enterprise and Regulatory Reform (BERR) – consider the establishment of codes of practice governing the relationship between primary producers and their customers if, despite the operation of the GSCOP, there continues to be a problem to address²⁰³.

Greater economic efficiency should promote resource efficiency

- 8 In addition to the direct consumer and producer benefits, greater transparency, better communication and the application of good business practice throughout the supply chain could have a further bonus of reducing waste. The excessive risk-transfer practices that the Commission has found in the supply chain can foster over-production and increase the waste of food and other resources²⁰⁴. A more efficient, leaner supply chain should also be greener.

The Competition Commission found that increased competition in highly concentrated local markets would benefit consumers

- 9 The Commission also examined local competition and highly concentrated local markets. It found that the cumulative effect on profit margins at larger grocery stores that

202 Competition Commission (2008) *The Supply of Groceries in the UK Market Investigation*, www.competition-commission.org.uk/rep_pub/reports/2008/fulltext/538.pdf

203 Ibid, paragraphs 11.294–11.297

204 Defra (2007) *Report of the Food Industry Sustainability Strategy Champions' Group on Waste*

face weak local competition represents an additional £105 million to £125 million in profit per year for large grocery retailers – around 3% of annual profits for the four largest retailers. The Competition Commission’s remedies include:

- the introduction of a competition test to the planning system for all new large store developments²⁰⁵, in which the OFT would assess whether the development would create or exacerbate a situation of high retailer concentration within a 10-minute drive of the store;
- the proposition that retailers be required to notify the OFT of large grocery store acquisitions; and
- measures to limit the use of restrictive covenants and exclusivity arrangements tied to land, which hinder the emergence of competition in locally concentrated markets.

If UK food policy objectives are to be realised, it is important that competition works and is supported by oversight arrangements that have the trust of those in the food chain and of consumers

- 10** The relationship between supermarkets and their suppliers has come under particular scrutiny, but the same principles of transparency, trust and fair dealing should apply all along the food chain – from farmers through intermediaries to retailers and so to

the consumer. For there to be effective competition in the food market, suppliers should have protection from undue exercise of buyer power whether they are dealing with supermarkets, wholesalers, manufacturers or other intermediaries. This is consistent with the key aim of delivering the benefits of competition to consumers.

- 11** In some instances, voluntary agreements for industry action may not be feasible due to the possibility of it being construed as anti-competitive behaviour. Government and industry will need to continue to find ways to encourage collective action towards societal goals – such as healthy eating and food safety – that are not anti-competitive²⁰⁶.
- 12** Looking beyond the UK, reducing distortions in agricultural trade would create a more efficient world market for food and a fairer basis for competition.

Action 5.1: Effective competition throughout the grocery supply chain

Effective competition and fair dealing should apply all along the food chain – from farmers through intermediaries to retailers and so to the consumer.

The Government is currently considering the Competition Commission’s recommendations in its *Groceries Market Investigation – Final Report*, published in April 2008.

²⁰⁵ Relates to stores that have, or will have post-development, over 1,000 m² net sales area
²⁰⁶ Advice on such matters is available at www.berr.gov.uk/files/file45711.pdf

5.2 Public trust and confidence in the food system rests on the safety of food supplies

- 13 First and foremost, the food we eat must be safe. Threats to food safety can be due to naturally occurring chemicals in food, or due to chemical and other contaminants introduced to the food somewhere in the supply chain. Food poisoning is caused by the contamination of food by naturally occurring microbes such as *Salmonella*, *Listeria* and *Campylobacter*. The risks of these microbes causing food poisoning are exacerbated by poor preparation, storage or cooking²⁰⁷.
- 14 Unsafe food can cause short- or long-term health problems, or in a few cases, death. Most at risk are vulnerable groups, such as babies or the elderly.
- 15 Food safety is the responsibility of industry, government and consumers. Industry has the primary responsibility to produce food that is safe. Industry also has an interest in ensuring that consumers are not put at risk, in order to protect their brands and reputation in the market, but also because they have a legal duty and a moral responsibility to protect consumers. Government needs to protect public health by setting and enforcing food safety standards. Consumers need to store, prepare and cook food in such a way that they do not increase the likelihood of food

poisoning for themselves, their families and friends.

- 16 In the UK, there are now stringent measures applying to food safety and hygiene throughout the supply chain, from farmers to caterers. These are enshrined in EU and UK law, and cover many aspects of food safety and hygiene regulations, and other standards relating to food.

Total incidence of food-borne illnesses in the UK fell by almost 20% between 2000 and 2005, but there is still much to be done

- 17 There was a 19% fall in the number of reported cases of food-borne illnesses between 2000 and 2005. The socio-economic benefits have been estimated at £750 million over the five-year period²⁰⁸. But as most food poisoning events go unreported, the true scale of the problem is difficult to determine. The Health Protection Agency estimated that there were 765,000 cases of food-borne disease in the UK in 2005, of which 470 resulted in death and 17,300 resulted in hospitalisation²⁰⁹. It has been estimated that the healthcare costs and loss of earnings amount to £1.4 billion every year²¹⁰.
- 18 One of the most effective ways of reducing food poisoning is to reduce contamination of meat and eggs in the food supply chain – on farms, in slaughterhouses, in retail and distribution centres and in the home. Action taken by industry has already reduced the level

207 The major food-borne bacteria that account for the majority of cases of food-borne illness include: *Salmonella*, which occurs in a wide range of foods including raw meats, eggs and salad vegetables; *Listeria*, which occurs in foods such as pâtés and soft cheeses; and *E. coli* O157, which tends to occur in raw beef, unpasteurised milk and dairy products and salad vegetables

208 Food Standards Agency (FSA) (2007) *Annual Report of the Chief Scientist 2006/07*

209 FSA (2006) Board Paper, Foodborne Disease, 12 October 2006

210 Ibid

of *Salmonella* contamination of chicken from 37% in 1993–94 to less than 6% in 2001. Currently, Food Standards Agency (FSA) targets for reducing food-borne disease focus on working with industry to reduce the incidence of *Campylobacter* in chickens and *Salmonella* in pigs.

- 19** But recent figures indicate that the number of reported cases of *Listeria* and *Campylobacter* (which are commonly found in chicken in the supply chain) is beginning to increase²¹¹. The sources of, and factors affecting, *Campylobacter* colonisation of chickens are not fully understood, and consistently effective interventions to tackle the problem are not yet available. FSA action focuses on promoting good biosecurity on poultry farms to keep out disease.
- 20** With an estimated 90–95% of UK-produced chicken already meeting the general biosecurity measures set by the Assured Chicken Scheme²¹², more specific and stringent measures on *Campylobacter* will need to be established and incorporated into the scheme in the future if the infection rate is to be reduced. Linking up the many European research projects on the issue, and learning from good practice, will be key in reaching an agreed set of standards that reduce its incidence. Defra and the FSA are considering how assurance schemes could ensure that high biosecurity standards are adhered to.

Government needs to work with local authorities and businesses to ensure food safety throughout the supply chain

- 21** The Government, through the FSA, currently spends £47 million on food safety and £35 million on the Meat Hygiene Service (2007–08)²¹³. In addition to this, Defra spends £128 million (2008–09) on implementing animal health and welfare policies on farms, at livestock markets and during transport as well as on managing outbreaks of diseases, through the work of the Animal Health non-departmental public body²¹⁴. Enforcement by local authorities costs approximately £98 million per year²¹⁵.
- 22** The enforcement of food hygiene and food safety law at local level is delivered through local authorities via an inspection programme based on risk. The FSA has moved from a focus on defining the role of inspections to an approach that allows greater flexibility for ‘interventions’, of which the inspection of premises might be just one kind. It has also shifted to become more outcome-focused – measuring the percentage of businesses that are compliant rather than the number of inspections undertaken by local authorities (this takes account of the recommendations in the Hampton Review, published in March 2005)²¹⁶.
- 23** There is now a focus on educational and supportive initiatives, such as the Safer Food Better Business programme²¹⁷. This initiative

211 FSA (2008) Board Paper, Progress report: Food Safety, 13 February 2008

212 Assured Chicken Scheme Assured Chicken Production (ACP) is an industry-wide initiative that independently assesses chicken production so that best practice in food safety, bird health, welfare and traceability is met

213 FSA (2007) Corporate Plan 2007–2010: Putting consumers first

214 Defra (2008) Budget Settlement

215 Chartered Institute of Public Finance and Accountancy (2006) *Environmental Health Statistics*

216 Hampton P (2005) *Reducing Administrative Burdens: Effective inspection and enforcement*

217 See www.food.gov.uk for more details. The programme has generated demand for the FSA to supply 430,000 hazard analysis and critical control points (HACCP) promotional packs to small-scale caterers and retailers

was launched to address the issues facing small caterers – getting information and advice to small-scale food service outlets poses particular challenges²¹⁸. The FSA has also implemented a food hygiene enforcement approach based on ‘earned recognition’. Producers who are members of a recognised farm assurance scheme (e.g. Red Tractor) are inspected less frequently than those that are not^{219, 220}. There is the potential to go further with the risk-based approach to enforcement throughout the food chain. The intention is to give even more power to local authorities to focus their resources on the small ‘hard core’ of high-risk businesses.

Improved food safety, through the ability to trace and recall products if necessary, is a key outcome of better traceability systems and processes

- 24** Contamination of food, whether microbiological or chemical, can present a risk to the consumer. Being able to determine the source of contamination and to track food through the distribution system are key to being able to respond to contamination incidents. But complex and lengthening supply chains pose considerable challenges for traceability. In 2005–06, 1,082 commercial consignments out of the 327,534 that entered UK ports were rejected on food safety grounds²²¹. Imported foods accounted for 80% of the food alerts

that the UK submitted to the EU in 2006. Nine of the top 10 source countries are outside the EU²²².

- 25** The dominance of supermarkets in food retail means that their risk management and product traceability systems have had a major impact on the food chain. Food products on sale to consumers that are found to be contaminated are removed promptly from the supply chain, which is indicative of the success of government and industry working together to protect consumers.
- 26** Strong monitoring and surveillance mechanisms are necessary so that the UK can respond to the risks posed to human health from new pathogens that emerge and cause diseases in animals, which could then be transferred to humans (e.g. BSE to variant CJD). Intensive livestock production increases the risk of such ‘zoonoses’. Prolonged contact by agricultural workers with livestock may increase their risk of infection. These are risks that government has a responsibility to reduce or eliminate through the setting of minimum standards for food safety. Industry has a responsibility to comply with the standards and with arrangements for the monitoring and surveillance of animal health²²³.

²¹⁸ Since 2006, there has been a legal requirement for businesses to have a documented food safety management system based on HACCP principles. This approach, based on HACCP, is seen as key to improving good hygiene throughout the food chain

²¹⁹ FSA (2008) *Review of Uptake of FSA Food Assurance Scheme Guidance*

²²⁰ FSA (2007) *Simplification Plan*

²²¹ FSA/Foodnavigator.com

²²² Ibid

²²³ www.defra.gov.uk/animalhealth/index.htm

Action 5.2: A whole food chain approach to tackling food-borne illness

As part of a comprehensive strategy to prevent food incidents, the Government, together with the industry, will develop a 'whole food chain approach' to identify the most important and high-risk food safety hazards in the food supply chain, and the points at which they can be best controlled. The whole chain approach will consider risk from all sources of food safety hazards, not just food-borne disease or microbial hazards.

The whole food chain approach will focus interventions at the highest risk points in the food chain. For example, the approach could put a greater onus on those businesses, such as small fast-food outlets, which serve food direct to the final consumers. It may also increase the obligation on primary producers, as reduction in contamination at that end of the food chain will have significant downstream benefits.

The whole food chain approach will require a sophisticated methodology for assessing the costs and benefits of interventions to tackle different risks, for example, the research, regulatory and education interventions that can best address the risks identified.

This work will be led by the FSA and a first progress report will be submitted to the FSA board in late 2008.

Innovations in packaging technology could improve food safety and reduce food waste

- 27 There are benefits to consumers being more aware of the links between food safety, the information on packaging and waste²²⁴. Recent evidence from the Waste and Resources Action Programme (WRAP) shows that 61% of the food waste created by consumers is 'avoidable' (e.g. food that could have been eaten if it had been stored correctly)²²⁵. The availability of more affordable food and the opportunities to eat out may mean that people do not get around to eating everything that they buy. Furthermore, they may not fully understand the differences between 'sell by', 'best before' and 'use by' dates, leading to confusion about what is safe to eat and what should be thrown away. Innovation in packaging could help consumers to be less wasteful and to enjoy safer food. 'Intelligent' packaging that conveys information to the consumer (for example, about its freshness) has already been developed. Examples of intelligent packaging include time-temperature indicators, ripeness indicators and spoilage and pathogen indicators. Though at the early stages of development, the wider application of such innovations could help to deliver higher standards of food safety.

224 FSA (2007) *Consumer Attitudes Survey*

225 WRAP (2008) *The Food We Waste*

Maintaining consumer confidence in the claims made for food, and in the regulatory safeguards that the food system operates under, is critically important. Potential problems arising from the interaction of the international animal feed market and the EU regime for GM products should be better understood

- 28** The EU is a major net importer of some animal feed products, such as soya and maize gluten. Producers in some exporting countries have been switching to GM varieties of soya and maize that are subject to special controls in the EU. Any genetically modified organism (GMO) grown or marketed in the EU for food use must first be granted marketing consent²²⁶. Animal feed is covered by the regulations, which apply to GMOs themselves (e.g. grain) and to animal feed ingredients derived from processed GM crops²²⁷. Restrictions do not apply to imported meat from animals that have eaten GM feed.
- 29** Approval of new GM plant lines in the USA and elsewhere is currently happening faster than in the EU (the EU process currently takes around 24 months). A number of farming and food industry stakeholders have expressed concern that producers in the EU could have increasing problems:
- finding sources of non-GM feed, as a result of global suppliers switching to GM crops. There are anecdotal reports that it is already becoming more difficult and costly to source non-GM feed (which some retailers have specified for suppliers of certain products, such as poultry); and
- 30** With UK feed prices already high, further price rises could have significant impacts on some livestock farmers. If imports were highly constrained or expected to become so, the pressure to maintain supplies would increase the risk that feed coming to the UK might inadvertently or even deliberately be wrongly labelled as non-GM, when in fact either approved or non-approved GM material is present. In the case of non-approved GM varieties, this could be despite efforts that are made to maintain segregated supplies.
- 31** Consumer confidence in UK regulations, regulators and food supplies might be prejudiced if GM feed was found in systems claiming to be GM-free, or if non-authorized varieties were detected in the UK food chain. If non-authorized material is found, there are also significant cost implications associated with recall, disposal and consumer advice.

²²⁶ EC Regulation 1829/2003

²²⁷ Two GMOs (both varieties of maize) have been licensed for cultivation in the EU, seven have been approved for import and processing only, but many more GM plant lines are grown elsewhere in the world

- 32 The Directorate-General for Agriculture of the European Commission identified the UK as one of the EU member states that, because of its normal trade pattern, is potentially more exposed to the problem of feed imports being disrupted due to the slow pace of GMO approvals in the EU²²⁸. The facts and the risks for the UK need to be examined in more detail. These include potential impacts on the integrity of the regulatory system and on livestock production, including the risk that additional costs will be imposed on producers that will ultimately impact upon the price of food.

Action 5.3: Animal feed and the regulation of GM products

Defra, working with the FSA, will publish an analysis of the potential impacts on the livestock sector arising from global trends in GM production and the current operation of the GM approval system in the EU.

In parallel, the FSA, working with Defra, will publish an analysis of the extent to which changes in the market are putting a strain on the regulatory system for GM products (including animal feed) and the implications for UK consumers.

The Government will continue to lobby the EU to improve the regulatory regime for GM products – including speeding-up decisions on the import of GM feedstocks, without prejudicing safety.

5.3 Catalysing further transition towards healthier diets

- 33 Market data and consultations conducted for this report both highlight interest in healthier eating as one of the key consumer trends of recent years. Health data suggest that consumers' concern is warranted – a third of cardiovascular cases and a quarter of cancer deaths are thought to be diet-related. The benefits to the public health of the UK of achieving recommended levels of consumption of fruit and vegetables, saturated fat, salt and added sugar are potentially as great as £20 billion a year in terms of quality-adjusted life years²²⁹.
- 34 Drawing on the evidence base developed by the Government's Foresight programme²³⁰, the Government has set out a new strategy to tackle obesity in England – *Healthy Weight, Healthy Lives*²³¹. This establishes a framework for action in five areas: children; food; activity; incentives; and personalised support and care.
- 35 Ensuring healthy growth and body weight for children is a priority, and diet and nutrition plays an important role in this. In early years this means encouraging as many mothers as possible to breastfeed, with families knowledgeable and confident about healthy weaning and feeding of their young children. As children grow, parents need to have the knowledge and confidence to ensure that their children eat healthily and are fit and active, and parents who need help should be able to turn to children's centres, health services and their local communities.

228 European Commission (2007) *Economic Impact of Unapproved GMOs on EU Feed Imports and Livestock Production*, http://ec.europa.eu/agriculture/envir/gmo/economic_impactGMOs_en.pdf

229 Department of Health estimate

230 www.foresight.gov.uk/Obesity/Obesity.html

231 Department of Health (2008) *Healthy Weight, Healthy Lives: A cross-government strategy for England*

- 36** Significant progress has already been made in this area. Food standards in schools have been raised. In England, all four- to six-year-old children in local education authority-maintained infant, primary and special schools are entitled to a free piece of fruit or vegetable each schoolday. And by 2011, cooking will be a compulsory part of the curriculum for all 11–14-year-olds.
- 37** There is a key role for the food industry in helping everyone to make healthier choices. Much has been achieved already: for example, the industry's action on salt shows how positive changes can be made through engagement, partnership and long-term commitment (Box 5.1). And voluntary action by oils and fats²³² suppliers in the UK has already reduced the trans fats content of foods. Intake of trans fats in the UK is estimated at 1% of food energy, compared to a recommended maximum intake of 2%. Intake in the USA, where legislation is being sought to limit the amount of trans fats in processed foods, is estimated at 2.6%.
- 38** The Government expects companies in each food sector to demonstrate their commitment to addressing the obesity challenge by pledging action to promote healthy eating. It has undertaken to work with industry leaders and other stakeholders to agree a Healthy Food Code of Good Practice, based on the good work already under way. While the wording of the Code will not change, there is scope for agreeing outcomes, goals and milestones. When these are agreed, Ministers and industry leaders will establish the Code as a challenge to the industry as a whole.
- 39** The Code, as proposed, has seven commitments. The Department of Health and FSA will write to stakeholders to confirm which department is leading each element of the Code, the desired outcome and the next steps. They are committed to working in partnership with industry to develop goals and milestones for delivery of each of the seven parts of the Code. The Government will assess progress annually, starting in early 2009.

Box 5.1: Action taken to reduce the salt content of food provides a template for future industry–government collaboration

With an estimated 75% of the salt that people consume already present in the foods that they buy, product reformulation by industry has a key role to play in improving health outcomes. Some 70 firms and trade associations have so far been involved in an FSA-led initiative to address this. The FSA set targets for the level of salt in 85 categories of food in March 2006, and is now reviewing these, considering what further reductions are necessary to maintain progress towards the daily average intake target of 6 g of salt.

With the salt content of products now flagged more prominently through front-of-pack nutritional labelling, the incentives on food chain businesses to reformulate are even greater.

The most recent survey data suggest that average adult salt consumption fell from 9.5 g in 2000–01 to 9.0 g in 2005–06. And the number of people looking at labels for salt content rose by 48% between 2004 and 2007.

²³² Trans fat is the common name for a type of unsaturated fat with trans-isomer fatty acid(s). Trans fats may be monounsaturated or polyunsaturated. Trans fats raise the type of cholesterol in the blood that increases the risk of heart disease. Fats containing trans fatty acids naturally occur in dairy produce and the flesh of ruminants, e.g. beef and lamb, but the main sources of trans fats in the UK diet are partially hydrogenated vegetable oils. Trans fats can be found in biscuits and cakes, fast food, pastry and some margarines

Box 5.2: The Healthy Food Code of Good Practice

The Healthy Food Code of Good Practice will commit those businesses who sign up to it to seven pledges:

1. A single, simple and effective approach to **food labelling**, based on principles that will be recommended by the FSA in light of the research currently being undertaken.
2. Smaller **portion sizes** for energy-dense and salty foods.
3. Rebalance **marketing, promotion, advertising and point-of-sale placement**, in order to reduce the exposure of children to the promotion of foods that are high in fat, salt or sugar, and to increase their exposure to the promotion of healthy options.
4. Help reduce the consumption of and levels of **saturated fat and sugar** in food – in particular the consumption of drinks with added sugar, along the lines of the continuing action on salt.
5. Increase consumption of healthy foods, particularly **fruit and vegetables**.
6. Work with the FSA, the Department of Health and other stakeholders to deliver a single set of key **healthy eating messages**.
7. **Provide information on the nutritional content of food in a wide range of settings** (for example, theme parks, visitor attractions, restaurants, takeaway foods) that is clear, effective and simple to understand.

40 This report endorses the priorities set out in the Healthy Food Code of Good Practice. The Code builds upon the action that industry is already taking, while challenging it to go further in promoting healthy eating.

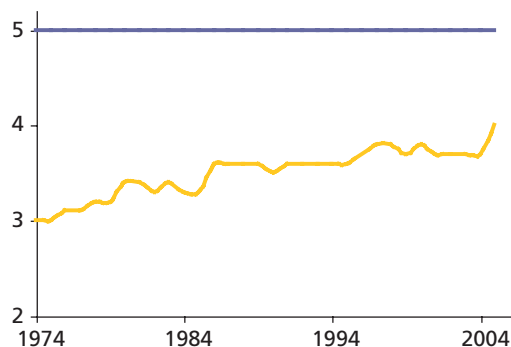
The potential health benefits mean that there is a very strong case for another drive to achieve the 5 A DAY target or better

41 Reaching the target for everyone to consume five portions of fruit and vegetables per day could see 42,000 premature deaths a year avoided (compared to 20,200 for salt and 3,500 for saturated fat targets). Average

purchases are rising but remains well short of the target (Figure 5.1²³³).

Figure 5.1: Average household purchases of fruit and vegetables in the UK reached four portions a day in 2005–06 (the recommended level is at least five), but other sources suggest that actual consumption may be much lower than this (see figure 2.2)

Approximate portions/day



233 Office for National Statistics (ONS) and Defra (2007) *Family Food in 2005–06*

Action 5.4: Increasing consumption of fruit and vegetables so that more people reach and exceed the 5 A DAY target

*Healthy Weight, Healthy Lives*²³⁴ and *Choosing Health*²³⁵ both recognised the importance of increasing fruit and vegetable consumption to promote healthier diets and lifestyles and to reduce the prevalence of obesity and premature deaths from diseases such as cancer and coronary heart disease.

The 5 A DAY programme has been successful in raising awareness and changing behaviour, but average consumption of fruit and vegetables among the population as a whole is still between three and four portions per day.

The food industry has played an important role in helping to raise awareness of 5 A DAY, through product branding, product promotion and information in stores and on websites. The Government believes there is now scope to increase consumption by engaging with retailers and manufacturers to examine how to improve, for consumers, accessibility of fruit and vegetables, product placement, the range of products that can count and the clarity of the 'what counts' message.

The Department of Health will target messages at specific population groups that are least likely to consume fruit and vegetables, such as young men and low-income young families.

Building on a recent pilot with a major supermarket that demonstrated how 5 A DAY promotion in a superstore can boost sales of fruit and vegetables, the Government will engage in similar activities with other retailers. The Government is also piloting a project for smaller convenience stores that mainly serve lower socio-economic groups. This will focus on placing healthier products in more prominent positions in stores to test the impact on purchasing habits.

- 42** Other countries recommend consumption of more than five portions of fruit and vegetables a day: six in Denmark, 5–10 in Canada, 10 in France, and five portions of vegetables plus two portions of fruit in Australia.
- 43** Retailers and the food industry actively promote the 5 A DAY message. Government needs to be playing its full part in the effort to raise fruit and vegetable consumption, and working with the industry to remove any barriers to promoting food choices that help consumers reach and exceed the 5 A DAY target.

²³⁴ Department of Health (2008) *Healthy Weight, Healthy Lives: A cross-government strategy for England*

²³⁵ Department of Health (2004) *Choosing Health: Making healthy choices easier*

Box 5.3: Case study – An apple in the Big Apple

Increasing fruit and vegetable consumption

When New York City conducted a community health survey, it found that in some neighbourhoods in the city, 25% of adults reported eating no fruit or vegetables on the previous day²³⁶. Neighbourhoods where fruit and vegetable consumption is low have high rates of obesity and diabetes. The city council estimates that only 10% of the 4,100 licensed mobile food cart vendors in the city sell fruit and vegetables. The council approved legislation in 2008 to expand the number of mobile food carts that only sell fresh fruit and vegetables ('Green Carts') to 1,000, prioritising the New York neighbourhoods that need them most (e.g. Brooklyn). Some 2,500 people are on the waiting list for a permit to sell food, and priority will be given to people currently on the waiting list who want to sell fruit and vegetables. Once all permits have been granted (through a phased approach), there will be a waiting list for Green Carts²³⁷.

Over the next two years, a \$1.5 million grant from a philanthropic trust will be used to support cart operators in developing a branded cart design to help customers recognise Green Carts; establish a relationship with non-profit wholesalers that will result in a dedicated supply of high-quality and low-cost produce; create a loan fund to help cart operators cover their start-up costs; and launch a coordinated marketing campaign to promote Green Carts²³⁸.

- 44 Drawing on the initiative under way in New York (see case study in Box 5.3), local authorities could increase the availability of fresh fruit and vegetables in their areas.

An apple on the way to work

Local authorities are responsible for issuing licences to stallholders wanting to sell fruit and vegetables at local markets or independently. The Government encourages local authorities to increase the number of fruit and vegetable stalls by:

- prioritising them over vendors selling other types of food; and
- considering the creation of additional pitches dedicated to fruit and vegetables.

These could be set up, for example, near bus and train stations to catch trade from commuters.

236 New York City Council (2004) *Community Health Survey*

237 New York City Council (2008) Presentation: Green Carts will increase access to healthy food, improving the health of an estimated 75,000 New Yorkers

238 New York City Council (2008) Press release: Mayor Bloomberg signs legislation establishing 1,000 'Green Cart' permits

5.4 Among the many environmental issues in food consumption and production in the UK, tackling waste and the impact on the climate are two key priorities

45 The environmental issues raised by food consumption and production are as diverse as the food system itself. From among the multitude of concerns, this section highlights two high-priority sets of issues:

- The interface of the food chain with the agenda to mitigate climate change – globally, in Europe and in the UK.
- How to promote a more resource-efficient food economy through measures that support better packaging and food waste management.

46 Climate change and waste management are two issues that span the length of the food chain. A number of other concerns – such as impacts on biodiversity – are concentrated more at the production end of the chain, in farming and fishing.

Climate change adds to the long-term challenge of feeding a growing and wealthier world population

47 Recent events in world food markets have highlighted that continued access to affordable food is not something that can be taken for

granted. The long-term challenges in this area are significant but not insuperable.

48 In looking at how to deliver global food security as this century progresses, the lessons of the previous ‘green revolution’ need to be learned. And efforts need to fit the future context: a planet that is adjusting to the effects of climate change, and economies that must radically cut GHG emissions.

49 The transition to resilient, low-GHG, low-impact food production systems will have to occur at the same time as outputs and yields rise to meet demand from a much larger and wealthier human population. We can also expect that resources – especially productive land and water – will be more scarce.

50 ‘De-carbonising’ global farming is a huge challenge, given that GHG emissions are ‘hard-wired’ into most current food production systems and standard models for raising output. The key problems are:

- the release of carbon from soils and from vegetation when land-use changes, such as when forests are cleared for agriculture;
- the nitrous oxide emissions associated with fertiliser use (application of chemical fertiliser has underpinned much of the growth in yield of recent decades) and livestock manure; and
- the methane produced by livestock, in a period when demand for meat and dairy products is expected to soar.

- 51** In a world living with severe constraints on total GHG emissions, there will be choices about how much of that GHG budget people wish to devote to food. The more emissions-intensive the diet, the smaller the budget available for other aspects of life.
- 52** The severity of this constraint will be affected by factors that include the size of that total GHG budget, the number of people among whom it is shared and our ability to acquire the know-how that helps us reduce the GHG intensity of the food chain, especially farming. At present our collective understanding of the options for de-carbonisation of transport, industry, homes and heating is more advanced than our understanding of the options for removing emissions of nitrous oxide and methane from agriculture.
- 53** These fundamental gaps, together with the other environmental and resource issues to be resolved in the food chain, suggest that although models and methods exist that might deliver a lower impact on emissions from food, truly ‘sustainable’ food cannot yet be defined.
- 54** This is a huge long-term global challenge. The Government is already undertaking a number of innovative research projects under the Agriculture and Climate Change Research and Development (R&D) Programme led by Defra²³⁹. International projects, such as the International Assessment of Agricultural Knowledge, Science and Technology for Development, have made valuable contributions²⁴⁰, but there is a need for much more research, and a clearer view of what the long-term goal is for food production in a low-carbon global economy and how to get there.

Action 5.5: The future of food production in a low-carbon world

A clearer view is needed of how the food system has to adapt to prepare for feeding a larger, wealthier global population living in a low-carbon economy on a planet experiencing the effects of climate change.

The Government’s Chief Scientific Adviser is commissioning a major new Foresight project to examine future global food systems. It will explore how future systems might evolve in a world that is adapting to and mitigating climate change. The project will be international in scope and will consider the implications for policy in the UK.

The climate change challenge is set to be a key area of Government engagement with farming and the food chain in the years ahead

- 55** The consumption and production of food generates almost a fifth of UK GHG emissions²⁴¹. The Government’s climate change policy (including the carbon budgets and associated arrangements defined in the Climate Change Bill currently being considered by Parliament) provides the infrastructure and context for efforts to reduce food-related emissions. Many of the food chain’s GHG emissions are already subject to generic control measures applied through this policy to reduce emissions across the economy as a whole – in transport, in buildings, in appliances, etc. A carbon price, in some form, applies to much of the food chain, although its level varies considerably (Figure 5.2²⁴²).

²³⁹ Projects are examining the potential for changes to ruminant diets to reduce GHG emissions, the likely impacts of climate change on the UK livestock industry and the impacts of climate change on UK crops

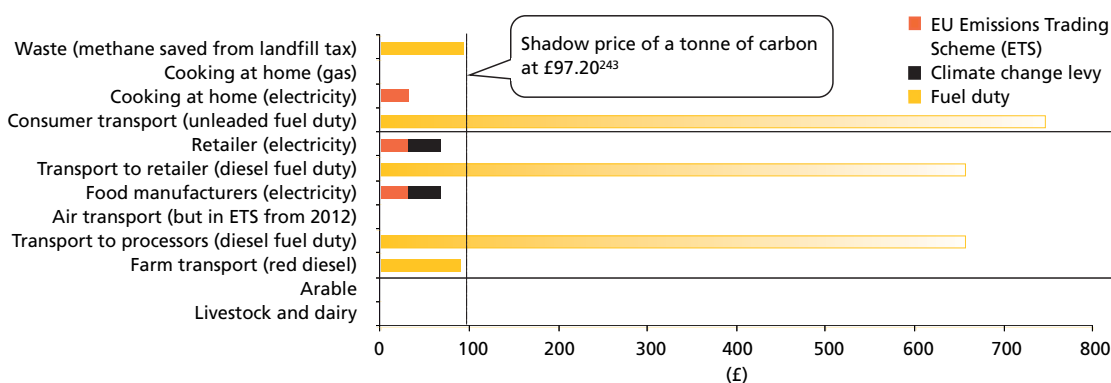
²⁴⁰ www.agassessment.org

²⁴¹ Defra analysis for Strategy Unit

²⁴² HM Revenue and Customs/HM Treasury (Defra communication, unpublished)

Figure 5.2 The carbon price applied across the food chain varies widely

Approximate 'price' per tonne of carbon emissions (combined price of emissions permits, climate change levy and fuel duty, but excluding VAT)



Note: Fuel duty is not, by intent or by level, a carbon pricing instrument. In practical terms it could be viewed, in part, as having an effect on demand similar to pricing measures designed to internalise the costs of congestion, air pollution, carbon, etc.

56 But almost half of the UK food chain's total GHG emissions are from agriculture, where much less has been done. There is no equivalent to a carbon price on emissions of methane and nitrous oxide, which account for around 80% of the global warming potential of farming's GHG emissions²⁴⁴. This is not sustainable or efficient in the long term.

57 **Over time, the framework put forward by the Stern Review²⁴⁵ (carbon pricing, the draw-through of new technologies and tackling market barriers) needs to be applied more consistently throughout the food chain.**

58 Agriculture is therefore set to have a more prominent place in GHG abatement policies in

the years ahead. This process is already under way. The Committee on Climate Change will, before the end of 2008, issue advice to the Government on the cost-effective abatement options for non-carbon dioxide (CO₂) GHGs, and on whether the UK should set budgets and targets covering all GHGs, rather than just for carbon dioxide.

59 However, a coherent approach is required: having fewer animals and less use of fertilisers would reduce UK GHG emissions from farming, but nothing will be gained by applying mitigation measures on UK or EU farming if food supply is simply displaced to overseas producers and there is no overall improvement in global emissions.

²⁴³ Defra (2007) *The Social Cost of Carbon and the Shadow Price of Carbon: What they are and how to use them in economic appraisal in the UK*, www.defra.gov.uk/environment/climatechange/research/carboncost/pdf/background.pdf

²⁴⁴ In the UK, farming is the largest source of these powerful GHGs

²⁴⁵ HM Treasury (2006) *Stern Review on the Economics of Climate Change*

The Government is working with the industry on developing new policy solutions for the mitigation of agriculture's GHG emissions

- 60** Defra has commissioned early-stage research on options that could be applied to bring agriculture into a carbon market framework. But there is much more work to do to develop robust and cost-effective mechanisms for internalising the external GHG costs of agriculture. New Zealand has committed itself to taking an early lead in this area (see Box 5.4) by including agriculture in a 'cap-and-trade' carbon market, although its national context is different: agriculture is responsible for 49%²⁴⁶ of New Zealand's GHG emissions, compared with 7% in the UK²⁴⁷.
- 61** Climate change offers new opportunities as well as challenges. Industry representative bodies have recognised this, and the need to be part of the solution²⁴⁸. The Country Land & Business Association has developed an online carbon calculator for land managers²⁴⁹. The dairy industry has come together to produce a 'Milk Roadmap' that assesses the environmental impacts of liquid milk and includes commitments to begin to address them²⁵⁰. It has set a target of cutting its on-farm GHG emissions balance by 20–30% by 2020, compared with 1990 levels, and recycling or recovering 70% of non-natural waste.
- 62** GHG emissions from agriculture arise as a consequence of consumer demand for particular foods. Carbon accounting in food supply chains is already making food manufacturers and retailers more aware of how far their products' carbon footprints are determined by on-farm emissions. Impacts are particularly concentrated in meat and dairy production. Consumer awareness of these impacts is increasing, and a higher profile of this issue is inevitable.
- 63** As consumer awareness of the GHG impact of food increases, new and additional supply chain pressures to improve GHG performance may arise. 'Low carbon' is set to become a source of comparative advantage for meat and dairy producers.

Box 5.4: Agriculture in the New Zealand Emissions Trading Scheme

The New Zealand Government is introducing a cap-and-trade emissions trading scheme to cover all GHGs and all sectors. Forestry was included from January 2008, and agriculture will be brought into the scheme from January 2013.

The New Zealand Government has not reached a final decision on where to place the primary obligations of the emissions trading scheme for agriculture. Its initial preference is for dairy and meat processors and fertiliser companies to be the primary points of obligation and therefore to have responsibility for reporting emissions and surrender units on behalf of the sector.

²⁴⁶ New Zealand Ministry of Environment, *Emissions Trading and Agriculture Factsheet*

²⁴⁷ AEA Technology (2007), *Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland: 1990–2005, Report to Defra, The Scottish Executive, The Welsh Assembly Government and The Northern Ireland Department of Environment*

²⁴⁸ Country Land and Business Association, National Farmers' Union, Agricultural Industries Confederation (2007) *Part of the Solution: Agriculture, Climate Change and Land Management*

²⁴⁹ <http://calm.circlesquared.com/>

²⁵⁰ www.defra.gov.uk/environment/consumerprod/pdf/milk-roadmap.pdf

There is scope to reduce emissions through research into and dissemination of techniques and technologies that reduce nitrous oxide and methane emissions

- 64** Some of the techniques that would reduce emissions could also improve yield and deliver more effective use of inputs – thus improving farm productivity. There are also opportunities for farms to contribute to other aspects of the UK's response to climate change and energy security at the same time as cutting GHG emissions and generating income – such as through generating electricity and heat via anaerobic digestion of manure and slurry and other organic matter. This is discussed later in this chapter.

The UK also needs to improve the sophistication of its systems for estimating on-farm greenhouse gases

- 65** A key 'enabling' step is to have systems in place for calculating GHG emissions that can recognise the abatement technologies and practices applicable to farming. Without this it is not possible to track, recognise or reward progress. The UK also needs to work within the EU and internationally to propagate those inventory innovations – preparing the ground for their wider adoption.

Action 5.6: A smarter system for calculating greenhouse gas emissions from agriculture

The Government will work towards introduction of a smarter system for calculating GHG emissions from UK agriculture. This system will be better able to take account of the kind of abatement techniques that farmers will adopt as they move to cut GHG emissions. A detailed programme of research has been commissioned to work towards this goal.

Alongside this research, the UK will work with other countries and international partners to learn from their approaches and develop the UK's GHG inventory accordingly.

The challenges and opportunities for European farming arising from mitigation of its greenhouse gas emissions warrant a higher profile at EU level

- 66** Across the 27 countries of the EU, agriculture accounts for around 9% of GHG emissions, 47% of methane emissions and 66% of nitrous oxide. Leadership and action by EU member states to cut agricultural emissions could help pave the way for greater reductions globally. The EU needs to give greater attention to addressing emissions from livestock and to finding a way of doing so without simply 'exporting' production of livestock products.

Action 5.7: Action to transform European agriculture’s response to the risks, responsibilities and opportunities of climate change

The Government will continue its leadership role on climate change in Europe by promoting the role of agriculture in both mitigation and adaptation of climate change. It will want to work closely with other member states, in particular Germany and France, as well as the European Commission, to build consensus on the priorities and the actions that follow.

A positive response to the challenge of climate change is one part of the future of farming

- 67 The Government has committed itself to a vision of farming for the future that makes an increasingly positive contribution to our environment, and protects and enhances the natural assets that underpin it. Farming should be rewarded by the market for its outputs, and by the taxpayer only for producing public benefits that the market cannot deliver.
- 68 The sector faces some major environmental challenges over coming years in the face of pressure from the market to increase agricultural production. It must take action across a broad front, notably in respect of climate change, but also more widely by improving water quality, managing soils better and safeguarding our biodiversity.

- 69 Farming and land management, through their stewardship of the natural environment, are also crucial to the delivery of a wide range of goods and services such as flood protection and carbon sequestration – ‘ecosystem services’. The value of these services needs to be recognised and integrated management of land, water and living resources promoted.

There are huge new opportunities to reduce the waste generated by the UK’s food chain, thus improving economic efficiency and reducing environmental harms

- 70 The main types of waste in the food chain are food and packaging. Millions of tonnes of both are produced every year. Much of this could be avoided, and what remains could be much better managed – this section maps out how.

Changes to England’s approach to managing waste packaging are needed to ensure that the system is fit for the future

- 71 Packaging has an important role in presenting, protecting and preserving products. It can extend the life of foods, reducing waste.
- 72 An estimated 5.9 million tonnes of packaging waste enters the UK’s household waste stream each year, of which around 4.7 million tonnes is food-related packaging²⁵¹. This is a small share (a little over 1%) of overall waste arising in the UK economy²⁵² but it represents about 80% of packaging collected from households²⁵³ and is highly visible to consumers. Packaging overall accounts for nearly a fifth of the household waste stream.

251 WRAP, *compositional analysis*

252 ERM and Golder Associates (2006) *Carbon Balances and Energy Impacts of the Management of UK Wastes*

253 WRAP/Defra/Environment Agency estimates, 2007

Considerable progress has been made in reducing the impact of packaging and improving recycling rates, but there is more to do

- 73** Many firms have made progress in reducing the environmental impacts of their packaging through innovation, 'light-weighting' (i.e. reducing the unit weight of packaging products), optimisation and increased use of recycled materials. These developments have gone largely unnoticed by consumers, particularly light-weighted packaging, as the overall volume of packaging remains highly visible and statistics concerning reductions in it are often not well communicated.
- 74** The Courtauld Commitment, a voluntary agreement between Defra, WRAP and major grocery retailers and food manufacturers, set a target of achieving absolute reductions in packaging used by the grocery sector by 2010. Given historic growth rates, this will equate to around 280,000 tonnes of packaging avoided each year. The agreement also commits the industry to work with WRAP to deliver its household food waste reduction target of 250,000 tonnes per year by April 2011²⁵⁴. The food industry's own targets require a 20% cut in food and packaging wastes arising at manufacturer's premises by 2010 and zero waste to landfill from 2015 (subject to the establishment of suitable infrastructure)²⁵⁵.

Some firms have also set individual targets for waste reduction and for reducing the amount of their own waste sent to landfill²⁵⁶.

- 75** The UK saw a doubling of rates of packaging waste recycling and recovery between 1998 and 2006²⁵⁷ and is on track to achieve the 2008 targets for material recycling set out in the EU Packaging Directive. But despite the progress that has been made, surveys and consultations²⁵⁸ suggest that packaging and its (lack of) recyclability is a continuing source of frustration for consumers, who pass their concerns back to retailers, who do not control the infrastructure, and to local authorities.

Incentives to reduce, recover and recycle packaging waste can be distorted by 'dislocations' within the food supply chain and the waste management system

- 76** Waste management is a devolved matter, managed separately in England, Scotland, Wales and Northern Ireland. In England, decisions on what materials are collected for recycling are vested with local authorities, who set their own recycling targets (though not for individual materials) and report progress against them as part of the Local Authority Agreements process²⁵⁹.

²⁵⁴ The Courtauld Commitment signatories account for over 90% of the grocery retail market and over £25 billion of combined annual turnover in the food manufacturing industry

²⁵⁵ Food and Drink Federation (2007) *Making a real difference*

²⁵⁶ For details of these individual commitments see http://wrap.org.uk/retail/courtauld_commitment/index.html

²⁵⁷ Packaging waste recycling has doubled from 27% in 1998 to 56% in 2006 (Defra (2007) *Waste Strategy for England 2007*)

²⁵⁸ Sustainable Development Commission (2008) *Green, Healthy and Fair*; Local Government Association (2007) *War on Waste*

²⁵⁹ In 2007, amendments to the measurement of local authority performance led to the establishment of 200 performance indicators, of which three indicators relate to waste and were negotiated with Defra (recycling rates, diversion from landfill and reducing the amount of residual waste for disposal). Each local authority is required to select 35 priority performance indicators against which it will report its performance to the Department of Communities and Local Government on an annual basis

- 77** Local authorities' decisions on what to recycle are often influenced by the weight-based nature of UK government and EU targets. They often opt to collect the heaviest materials first – rather than those materials (e.g. aluminium) that might render the most environmental and economic benefit. The system can encourage a focus on volume over quality, and there is variation from place to place in what is recycled.
- 78** Poor alignment of incentives and imperfect transmission of information along the food chain can result in excess packaging and inhibit the development of solutions that make for a more efficient system. Packaging innovations can be slow to spread, with the result that the amount of material used to package similar products varies enormously. To take one example, 75 cl wine bottles can weigh anything from 300 g to more than 900 g; 106,000 tonnes of glass a year would be saved if all producers used the best weight of bottle available.
- 79** A shift towards specification of plastic packaging has reduced weight and material use but has created new challenges in a context where few local authorities recycle plastics other than bottles. This illustrates how progress on some measures can create new problems elsewhere. And some models of household collection can lead to recycle of poor quality that does not meet market needs and can create problems for export control. These issues will matter more in the future because, as the cheaper and cleaner

supplies of material from commercial and industrial sources are exhausted, future increases in recycling will require a heavier focus on household waste.

Looking ahead, a system is needed that is capable of responding to the new pressures that are emerging

- 80** The UK's recycling arrangements and producer responsibility system have delivered cost-effective increases in the recovery of material for recycling. But strategic policy goals have changed over time and public expectations are shifting. The UK's rates of packaging recycling are lower than those achieved in many other EU countries; the recovery and recycling of waste could make an important contribution to the UK's GHG emission targets; and there is more to do to encourage waste prevention at source. England, in particular, needs a packaging waste system that does more to encourage waste prevention and support the recovery and recycling of packaging by households and by business.

Action 5.8: A new food packaging strategy for England

A new strategy for dealing with waste packaging in England will be developed, set within the framework provided by the Waste Strategy for England (2007). It will aim to get incentives better aligned along the food chain to encourage reduction in the amount of packaging and more re-use and recycling. It will also aim to improve information flows between manufacturers, retailers, consumers, local authorities and re-processors.

The assessment conducted to inform the strategy will examine what can be done to:

- prevent packaging that does not comply with the Essential Requirements provisions of the EU Packaging Directive and the UK Regulations entering the market;
- increase the availability and consistency of recycling services for household waste for the main packaging materials so that targets and public expectations can be met;
- ensure that packaging is designed with resource efficiency, recyclability, recovery or re-use in mind;
- ensure that material recovered for recycling from the household waste stream meets market needs;
- encourage positive attitudes among consumers towards packaging with recycled content;
- promote cost-effective reductions in the carbon impacts of the packaging chain; and
- foster synergies between commercial, industrial and household packaging waste collections to improve the economics of collection.

This work will be taken forward by Defra and BERR.

Alongside the development of a packaging strategy the Government will also:

- open discussions on a new voluntary agreement to achieve a demanding target on the net reduction of packaging for 2012 and a new objective to encourage the use of recycled material, and will negotiate Courtauld Commitment-type agreements for other business sectors; and
- work with the British Standards Institution on improving the information that is currently available to businesses on the EU Essential Requirements.

Waste management is a devolved matter. The UK Government will consult the Devolved Administrations about possible participation in initiatives of common interest – such as further development of voluntary agreements with industry. The Regulations on Essential Requirements in packaging are reserved.

There are real opportunities to reduce the UK's huge food waste problem through greater awareness and the development of a new generation of clean energy recovery centres – many of the which will be needed in urban areas

81 Millions of tonnes of food, worth billions of pounds, are wasted in the UK every year. A third of the food bought for home consumption is wasted – some 6.7 million tonnes²⁶⁰. Most of this food, 4.1 million tonnes, could have been eaten (i.e. it is not just peelings, seeds and bones). Around 2.5 million tonnes of food is wasted because it goes off before it is eaten or passes its 'use by' or 'best before' date. Preparing or cooking too much food results in an additional 1.6 million tonnes of household food waste each year. Nearly 1 million tonnes of food is thrown away each year whole or in unopened packaging. The variety of food wasted is illustrated in Box 5.5.

82 Overall, the UK generates around 15.7 million tonnes of waste food each year from domestic, commercial and industry sources^{261, 262}. This is 3.6% of the total waste generated in the economy and the sixth largest component of the overall waste stream^{263, 264}.

83 On this scale, the disposal of uneaten food that has been grown, processed, transported, stored, prepared and cooked represents a huge waste of resources, and leads to 'unnecessary' greenhouse gas emissions equivalent to 18 million tonnes of CO₂ (from the farm inputs involved to the gases released in composting or landfill). **Eliminating household food waste alone would deliver a climate change benefit equivalent to taking one in five cars off UK roads.**

84 The economic costs of household food waste are substantial. **UK consumers pay for, but do not eat, £10 billion of food every year – an average of £420 per household.** For families with children it is more – an average of £610 a year. Add in the £1 billion that it costs local authorities to send most of this to landfill, and it is clear that a large amount of money is wasted.

Box 5.5: Not eating our daily bread?

WRAP's *The Food We Waste* report shows that every day in the UK we throw away:

- 7 million slices of bread;
- 1 million slices of ham;
- 4.4 million whole apples;
- 1.3 million yoghurts and yoghurt drinks; and
- 440,000 home-made and ready-made meals.

²⁶⁰ WRAP (2008) *The Food We Waste*

²⁶¹ Defra/WRAP/Strategy Unit estimates using statistics from the Environment Agency/WRAP/ONS/Food and Drink Federation

²⁶² This figure excludes agricultural food wastes, for which few reliable data exist

²⁶³ Only manures and slurries, construction wastes (including waste soils), paper and card and garden waste are produced in larger quantities

²⁶⁴ ERM and Golder Associates (2006) *Carbon Balances and Energy Impacts of the Management of UK Wastes*

There is evidence that most people, once aware of what they are wasting, are prepared to act

- 85** In one study, 69% of households that kept a week-long diary recording the food they threw away then committed themselves to doing something about it²⁶⁵. Defra research suggests that, from an environmental point of view, people are both willing and able to reduce food waste²⁶⁶.
- 86** The Love Food Hate Waste campaign run by WRAP provides practical advice and guidance to consumers to help them manage their food better and reduce the amount that they waste²⁶⁷. So far 1.45 million UK households have committed themselves to reducing their food waste, saving 110,000 tonnes of food²⁶⁸.

Technologies are available that make productive use of the residual food waste that cannot be avoided

- 87** Food waste can be processed to generate renewable electricity and heat energy, using technologies such as gasification and anaerobic digestion (AD). Initial estimates

suggest that 2.2 terawatt hours could be generated through the separate collection of up to 60% of the household food waste alone – enough energy to provide power for all the homes in Glasgow and Edinburgh²⁶⁹. Energy can also be recovered from food waste remaining in the residual waste stream, and this can be done particularly efficiently if this waste is converted to a fuel that is burned using combined heat and power.

- 88** AD has been shown to have numerous advantages over other technologies for the treatment of separately collected food waste²⁷⁰ and may be more cost-effective than in-vessel composting (IVC) of mixed green and garden waste, despite its higher capital costs and the higher collection costs associated with collecting food waste separately. It can also deliver better environmental outcomes because of its potential to generate heat and energy (as well as a bio-fertiliser). IVC brings with it significant carbon benefits but is a small net energy user.
- 89** The biogas produced by AD can be converted into energy for local use, supplied as electricity or gas to the national grid or processed into a vehicle fuel. The other products – liquor and fibre – have significant fertiliser value and can

Box 5.6: Reducing food waste in the home

- Fresh fruit, vegetables and salad can last up to two weeks longer if kept in the fridge.
- Check 'use by' dates and see whether the product can be frozen if it can't be eaten in time.
- Many convenience foods can be frozen – check the label in the supermarket.
- Discounts and 'buy one, get one free' offers are only a saving if you have a plan to use them – meat and fish multi-buys can often be divided and frozen for later consumption.

See www.lovefoodhatewaste.com for more details

265 WRAP (2008) *The Weight and Cost of Food Waste: Kitchen diary results*

266 Defra (2008) *A Framework for Pro-Environmental Behaviour*

267 www.lovefoodhatewaste.com

268 WRAP (2006–08) *Love Food Hate Waste campaign evaluation surveys*

269 WRAP, 2008 estimate based on a typical anaerobic digestion system capable of an energy conversion efficiency of 37%

270 Eunomia Research & Consulting (2007) *Dealing with Food Waste in the UK*

return useful amounts of organic matter to soils. The whole process of anaerobic digestion and the controlled application of digested materials reduces the environmental impact of manures and bio-waste streams by lowering methane emissions and controlling odours.

Technologies such as AD are becoming economically viable waste management options, but the location of facilities matters – ideally they should be close to the source of the waste and to a market for the end products

- 90 The annual increases in landfill tax mean that the cost of sending waste to an AD plant may be the same as, or less than, the cost of landfill²⁷¹. Demand for new facilities is increasing as local authorities and industry strive to divert biodegradable waste from landfill in response to the UK's requirement to meet EU Landfill Directive targets in 2010, 2013 and 2020.
- 91 AD facilities need to be efficiently located in relation to the source of the waste and the destination of the outputs (bio-fertiliser, biogas and heat). Much of the UK's food waste is generated by home owners and by small businesses and thus arises in centres of population. There is considerable scope to make better use of the heat energy generated by AD, but for this the facility needs to be located close to a source of demand. Some parts of the UK will have local restrictions on the use of the bio-fertiliser produced, owing to

excess supply of nitrogen in the soil (such as where there are high numbers of dairy cattle).

Expansion of the UK's capacity to generate useful products from residual food waste could help the UK take a significant step towards a new 'low-impact' food economy

- 92 An estimated 3.4 million tonnes of source-segregated waste was composted in 2005–06²⁷² (up by 28% from 2004–05), of which 85% was municipal waste. But most of this composting capacity was designed for the treatment of green (e.g. garden) waste and is not suitable for food waste. Only 12% of the 236 sites in the most recent survey by The Composting Association had the regulatory approvals required for treating food waste. Approved composting and AD sites are distributed across the UK, but with so few of them available there are inevitably areas of the country where access to facilities is poor.
- 93 A recent survey²⁷³ found that over 60 new AD sites are being planned, many more in some regions than others. The main barriers to the commercial development of AD were found to be cost, unproven technology and lack of awareness of the range of innovation in use around the world, and planning and regulatory issues^{274, 275}. The survey found that the actions needed to help the market were a joined-up approach from the Government, clarity on financing, and increasing the number of end markets for outputs.

271 Landfill tax for active waste is scheduled to increase from £24 per tonne today to £48 per tonne by 2010

272 Composting Association survey for 2005/06

273 WRAP (2008) *Request for Information Survey* (in advance of launch of WRAP's capital grant funding tender for 2008–09)

274 Similar barriers to commercial development were highlighted in the UK Government's Business Task Force on Sustainable Consumption and Production report *Decentralised Energy: Business opportunity in resource efficiency and carbon management* (2008)

275 Barriers to AD were discussed at a Defra workshop in September 2007. The report is available at www.defra.gov.uk/farm/environment/climate-change/anaerobic-workshop/pdf/071011WorkshopReport.pdf

The Government has recognised that development of the food waste treatment sector requires further incentives and financial support

94 The first objective in tackling the UK's food waste problem has to be reduction – preventing the waste in the first place. But there is huge potential to improve energy recovery from the waste that cannot be avoided. The rising cost of landfill means that the economic drivers are coming into place; however, the Government has recognised that

additional measures are needed to ensure that energy recovery from food waste is maximised. Examples of the initiatives being taken forward are shown in Box 5.7.

95 If the new infrastructure that is required is to be delivered, developers will need a well-informed and sympathetic response from the planning system. These facilities are unobtrusive, but they are unfamiliar to communities and planning officers. Support and education will be required to ensure that appropriate sites are available.

Box 5.7: Government initiatives supporting energy recovery from food waste

- A total of £10 million has been made available over three years from the Environmental Transformation Fund to finance a new programme demonstrating the benefits of AD.
- Electricity produced from the anaerobic digestion of waste will be eligible for double Renewable Obligations Certifications (ROCs) – rather than the single ROC level applied to many other energy technologies. This has been viewed by operators as a major incentive for the development of new plants.
- The Environment Agency is developing a standard and a protocol for digestate (the treated material from anaerobic digestion plants) to help develop the market for its use as a fertiliser and soil conditioner. These will set out conditions on its production and use and clarify the point at which it ceases to be 'waste' for the purposes of the Waste Framework Directive. The aim is to have a standard and protocol in place by autumn 2008.
- WRAP will run up to three rounds of capital grant funding to support new capacity for processing source-separated food waste from municipal, commercial and industry sources.
- The Government has recently consulted on options for developing renewable supplies of heat and potential policies that might reduce the carbon impact of heat.

Action 5.9: Reducing food waste and recovering energy

The Government will work to reduce food waste produced in the food chain and by households and to extract the maximum renewable energy from what remains.

It will work with WRAP to:

- substantially cut the amount of food wasted in the food supply chain and in homes by 2012, engaging with the food chain through a new Courtauld Commitment-style voluntary agreement. The UK Government will consult with the Devolved Administrations about their possible participation in this voluntary agreement to facilitate its extension beyond England;
- launch a focused effort with the industry to tackle 'hot-spots' in consumer food waste, as identified in WRAP's *The Food We Waste*; and
- develop a web-based tool to help smaller businesses reduce the amount of food they waste.

It will also aim to maximise the contribution of residual food waste to the renewable energy generation, by doing its part to support the development of infrastructure. It will:

- develop a clear road map for extraction of energy from food waste, drawing on the conclusions of the Renewable Energy Strategy and recognising that although the private sector will take the lead role in the development of facilities, the Government will need to ensure that the waste planning system in England is equipped to respond to an expansion of infrastructure for managing food waste; and
- ensure that the results of food waste collection and treatment demonstration projects, augmented as necessary, are available to all. This information will help local stakeholders, such as local councillors and waste planning authorities, make well-informed decisions on new renewable energy projects that use food waste.

6 Leadership, food and the public sector

- The Government has a duty to look after those in its direct care: patients, pupils and prisoners. It also has a duty towards those it employs.
- It will develop a scheme to promote a Healthier Food Mark in England to signal where public sector caterers are providing healthier, lower-impact food. Depending on the success of the scheme in its early stages; the Government aims that in the future it will be extended across the public sector in England – supporting a minimum standard for healthy food for the millions of people who eat food served by public sector caterers every day.
- Though there is much to be celebrated about the food provided in public sector institutions, there are also problems.
- In many instances, food procurement is the responsibility of local authorities and other local bodies – creating opportunities for innovation but also for wide variability in practices and dilution of the purchasing power of the public sector. In other cases, food is procured through national contracts (e.g. for the Department of Work and Pensions). Higher standards for food served by public institutions, established through the procurement process across the public sector, would create a powerful demand-side driver for healthier food.
- No foods would be wholly banned from menus, but healthier versions of dishes and more healthy options would be on offer. Other sustainability concerns would be addressed more systematically and consistently.

1 This chapter sets out how the Government aims to improve the quality of the food served by public institutions to service users and public sector employees in England.

6.1 A new promise of healthier public food

2 Every working day millions of people eat food provided by the public sector – in schools, nurseries, work canteens, hospitals, care homes, prisons and elsewhere. Almost a third of all meals served by caterers in the UK are prepared in public sector institutions. Over 300 million meals are served each year by the NHS alone²⁷⁶.

3 The quality of this food matters. Quality means nutritionally balanced meals, but also food that is well prepared and appetising. It matters because good food contributes to a healthy, balanced diet for those who eat it. For some, food served in public sector institutions constitutes most of their diet; for others it makes just an occasional contribution. Better food helps those who are unable to make their own food choices. And it matters in a wider sense, as it shows that the public sector is taking its own advice and following the policies, principles and priorities that it calls on others to adopt.

4 The Government has a duty to look after those in its direct care: patients in hospitals,

276 National Audit Office (2006) *Smarter Food Procurement in the Public Sector*

prisoners, older people in care homes and children in school. It also has a duty towards staff, in the provision of a safe and healthy working environment. Better-quality food is a critical part of the experience of improved service or working conditions. *Healthy Weight, Healthy Lives*²⁷⁷, published earlier this year, set out the Government's strategy for addressing obesity and overweight. Healthy public food is a key part of bringing the principles set out in that strategy to bear on the public sector's own business.

- 5 The importance of the government and public sector leadership on food has been recognised explicitly in past statements of policy. The 2005 Food and Health Action Plan (FHAP)²⁷⁸ declared that:

'The public sector, including the NHS, has a Corporate Social Responsibility to offer healthy nutritious food in its institutions and to lead by example in improving the diets of its staff and patients.'

- 6 The 2007 Sustainable Procurement Action Plan called for the UK to be among the European Union (EU) leaders in sustainable procurement by 2009, and to achieve a low-carbon and more resource-efficient public sector. This included government supply chains and public services that are increasingly low carbon, low waste and water efficient and that respect biodiversity and deliver wider sustainable development goals.
- 7 Furthermore, the Public Sector Food Procurement Initiative (PSFPI) has worked since 2003 to:

- promote food safety, increase the consumption of healthy and nutritious food and improve the sustainability and efficiency of food procurement catering services;
- improve sustainable performance at each stage of the food chain in support of the Sustainable Farming and Food Strategy; and
- mainstream good practice in food procurement and supply, to improve efficiency and realise savings that can be ploughed back into improving catering services²⁷⁹.

- 8 A transformation in the quality of food is already under way in schools, driven by the Government's reintroduction of common standards and renewed investment. Some local authorities have taken a lead in offering healthier menus to staff. Progress is being made in improving prison food. There are examples of excellence in hospitals – including cases of imaginative strategies for sourcing fresh produce and other ingredients that have provided new opportunities for small local suppliers²⁸⁰.

- 9 But there is some way to go before the aspirations of FHAP and PSFPI are reflected in the reality of the food served across the public sector to service recipients, staff and those visiting public buildings. Those working to improve the quality of food and efficiency in procurement often struggle in the face of systemic inertia and complexity. Both by reputation and in practice, the suggestion is that there is more to be done.

277 Department of Health (2008) *Healthy Weight, Healthy Lives: A cross-government strategy for England*

278 Department of Health (2005) *Choosing a Better Diet: A food and health action plan*

279 See, for instance, Defra (2007) *Public Sector Food Procurement Initiative – Putting it into practice*

280 Soil Association (2007) *A Fresh Approach to Hospital Food*

- 10** Too often, the meals paid for through the public purse are not nutritionally balanced or appetising^{281, 282}. The drinks and snacks offered in vending machines do little to encourage a better diet. The presence in hospitals of fast food outlets offering meals that are high in salt, saturated fat and sugar sits uncomfortably with the NHS's own messages on healthy eating.
- 11** Expectations of the quality of public sector food may be low, but expectations of the quality of public services more generally are rising. All service users and employees in the public sector should have access to food that offers choice, variety, taste and enjoyment, while meeting government recommendations on nutritional content.
- 12** The benefits are there for the taking: fewer malnourished patients and quicker recovery times; fewer complaints about the quality of the service as a whole; healthier staff; more efficient food procurement and less food left uneaten and wasted; and more sustainable (in the fullest sense) public sector food.
- 13** The time has come to complete the task and – with a renewed sense of purpose and spirit of leadership – to deliver on the promise of healthy, nutritious food. This does not imply the end of choice or a ban on popular foods from public institutions. It means a guarantee of well-constructed menus that contribute to a balanced diet and use more healthy ingredients. It means that more healthy options will be

promoted by food outlets on public premises. The transformation required to improve nutritional quality would also open the door to more sustainable food, and by fostering a common approach it could raise the efficiency of food procurement, as called for by the National Audit Office in its 2006 report on public food²⁸³.

6.2 The market for public sector food

- 14** Over 1 billion meals are served in the public sector in England and Wales each year²⁸⁴. Public sector spending on food is around £2 billion per year in England, a figure that excludes spending by staff and visitors in canteens and other workplace food service outlets²⁸⁵. Around half of public sector spending on food goes on school meals (Figure 6.1²⁸⁶).
- 15** Customers of publicly provided food in England include:
- service users – those for whom the state has a direct duty of care:
 - schoolchildren (around 9 million, to whom 3.25 million meals are served a day²⁸⁷);
 - hospital patients (on average more than 100,000 people are in hospital at any one time, and almost 1 million meals are served each day to patients and staff²⁸⁸);
 - care home residents (200,000 places in the public sector²⁸⁹);
 - prisoners (about 90,000) and young offenders²⁹⁰;

281 National Audit Office (2006) *Serving Time: Prisoner diet and exercise*

282 Commission for Social Care Improvement (2006) *Highlight of the Day? Improving meals for older people in care homes*

283 National Audit Office (2006) *Smarter Food Procurement in the Public Sector*

284 Ibid

285 Ibid

286 Ibid

287 Ibid

288 Ibid

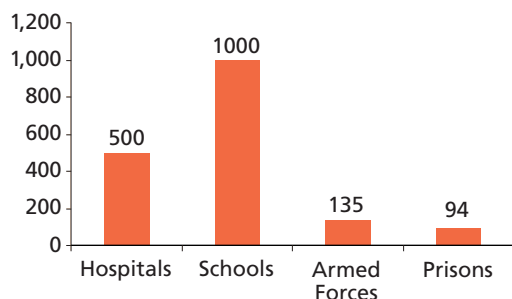
289 Commission for Social Care Commission (2008) *The State of Social Care 2006–07*

290 Ministry of Justice (2008) *Population in Custody Monthly Tables*

- children in maintained nurseries and early education places in primary schools (670,000)²⁹¹;
- many staff (5.8 million public sector employees across the UK as a whole, including 1,255,000 in public administration, 1,361,000 in education and 1,531,000 in the NHS²⁹²); and
- visitors (people visiting public buildings such as hospitals and leisure centres).

Figure 6.1: Around half of public sector spending on food in England goes on school meals

Spending on meals in the public sector, £ million



- 16** Some recipients of public sector meals, such as prisoners and people in care homes, are entirely dependent on public sector food for prolonged periods. Others, such as hospital in-patients, are reliant on it for shorter times.
- 17** Many public sector buildings provide staff restaurants, coffee shops and vending machines for their employees. Staff can choose whether to eat there or elsewhere, but in some circumstances the workplace may be the only

option – a public building may not be near shops and restaurants, or uniformed staff may not be allowed to eat outside the workplace. Communicating messages to staff about healthier eating, and getting their buy-in through consultation on any changes to menus and options available in vending machines, is key to changing eating behaviours.

- 18** As an employer, the Government has a legal duty of care towards its employees in providing a safe and healthy working environment²⁹³. Healthy workplace food is an important part of the overall ‘healthy workplace’ package of the kind discussed in *Healthy Weight, Healthy Lives*. Providing canteens that serve a variety of high-quality, nutritious meals demonstrates a commitment to deconstructing the ‘obesogenic’ environment²⁹⁴. At present, although the Food Standards Agency (FSA) has developed guidelines for catering services that serve adults, catering services in public sector workplace canteens are currently under no obligation to follow them²⁹⁵.

- 19** Analysis conducted for this project suggests that, if the public sector is representative of the UK working population as whole, its workforce currently includes 3.2 million obese or overweight people, of whom around 800,000 are obese (Figure 6.2^{296, 297}). This total number could increase to 4.1 million by 2020, if projections developed for the Foresight report *Tackling Obesity: Future Choices* prove accurate²⁹⁸. The nutritional

291 Department for Education and Skills (2007) *Provisions for Children under 5 Years Old* (the number of 3-year-olds benefiting from some early education at maintained nursery and primary schools was 221,400, 38% of the total 3-year-old population; the number of 4-year-olds was 446,879, 79% of the total 4-year-old population)

292 ONS (2005) *Trends in Public Sector Employment*

293 The Health and Safety at Work Act 1974 and the Management of Health and Safety at Work Regulations 1999

294 Government Office for Science (2007) *Foresight, Tackling Obesity: Future Choices – Project Report*

295 FSA (2008) *Guidance on Food Served to Adults in Major Institutions*

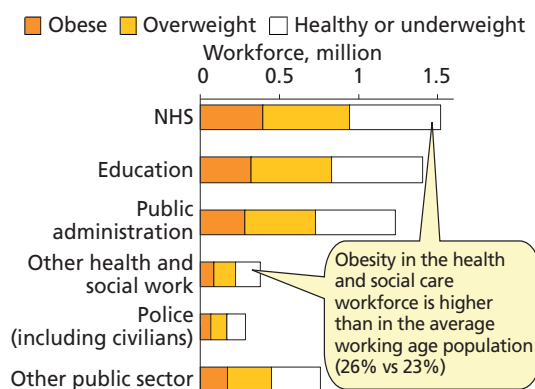
296 Estimates calculated assuming that the proportions of obese and overweight people in the public sector workforce are similar to those in the overall working age population (age 16–64); this assumption is supported by the Health Survey for England. Obesity is assumed to be negligible in the Armed Forces

297 Health Survey for England (2005)

298 Government Office for Science (2007) *Foresight, Tackling Obesity: Future Choices – Project Report*

health of public sector staff has had limited attention to date, but given current concerns about public health, obesity and diet-related disease these initial estimates suggest that it should be a significant concern. The Strategy Unit's estimates suggest that the NHS alone might have almost one million employees who are either overweight or obese.

Figure 6.2: Estimates of the numbers of obese and overweight people in the public sector workforce



20 Mandatory food-based standards for school food came into force in 2006, and nutritional standards will come into force in primary schools from September 2008 and in secondary schools from 2009. Together with substantial government investment, these standards are beginning to transform school food. The School Food Trust reports hundreds of case studies of schools that have increased the quality and take-up of food. Not only have there been anecdotal reports of improved behaviour and well-being among pupils, some schools have seen an increase in income from school meals. Many schools have positively transformed the quality of food provision, and successful approaches have been tailored to the needs of the school.

21 However, the School Food Trust found an overall reduction in take-up of school-meals in England between 2006 and 2007, from 42% to 41% in primary schools and from 43% to 38% in secondary schools. Reasons cited by pupils for this reduction included cost, lack of choice and lack of consultation. Between 2005–06 and 2006–07, prices of school meals increased by 5%: from £1.56 to £1.63 in primary schools and from £1.64 to £1.72 in secondary schools²⁹⁹. There are lessons to be learnt from the speed, implementation and communication in schools if standards are to be raised elsewhere in the public sector.

6.3 There is much to be celebrated in the efforts already made to provide and promote higher-quality, nutritious and lower-impact public food

22 Other initiatives in schools are complementing the standards³⁰⁰:

- The School Fruit and Vegetable Scheme provides almost two million 4–6-year-olds in English state-maintained infant, primary and special schools with a free piece of fruit or vegetable each school day.
- The Building Schools for the Future Programme provided funding of £6.3 billion in 2007–08 for the refurbishment of schools in England, including prioritising the creation or refurbishment of kitchens within this additional funding.

299 Nicholas J et al (2007) *School Food Trust: Second annual survey of take up of school meals in England*

300 National Audit Office (2006) *Smarter Food Procurement in the Public Sector: Case studies*

23 Hospital food is improving, with protected mealtimes, initiatives to introduce food available at any time if patients want snacks³⁰¹, a choice of a hot meal at lunch and supper and changes to menus and menu systems. The Better Hospital Food Programme (2001–06) rated 83.9% of hospital meal services as good or excellent in 2005³⁰², compared with 58% in 2004³⁰³. The Nutrition Action Plan, launched in October 2007, is a joint initiative between the Department of Health, non-governmental

organisations, research organisations and representative bodies from the health sector, which has agreed an action plan for improving nutrition in hospitals and social care. This includes a new role for the Healthcare Commission to spot-check trusts against nutritional standards for food provided to older patients, and new measures to assess whether providers are screening patients who are at risk of malnutrition.

Box 6.1: Case study – Highdown Prison’s catering service

Healthier prison catering at no extra cost

Highdown Prison provides a pre-selected, four-week cyclical menu that changes seasonally. When planning the menu, cost and nutritional content are the main factors that have to be considered. The daily meal allowance of £1.85 must cover all food and beverage provision for each prisoner and this has to provide a meal that is nutritionally adequate. From this budget, five portions of fruit and vegetables are offered each day. The prison also offers on a daily basis: fish (oily fish at least twice a week), poultry, red meat, vegetarian and vegan meals. Pulses feature heavily in dishes due to their nutritional value and low cost.

Healthy options, such as salads and dishes cooked without fats and added salt/sugar, are available daily. All dishes are cooked without added salt. Alternatives to fried potatoes are offered daily, usually baked jacket potato, steamed potato or steamed rice. Fresh vegetables such as steamed carrots, cabbage, broccoli or ratatouille are offered daily, and 95% of the dishes are freshly prepared and cooked on the premises. In addition, the prison offers a nutritional and calorific breakdown of a prisoner’s meal choices for the week. This is especially useful when providing diets for vegans or people with illness such as coeliac disease. The prison has been awarded the Heartbeat Award for Healthy Eating for the past seven years by its local health authority as a result of its nutritionally balanced menus.

HM Prison Service has contracts with suppliers of different food groups, such as fresh fruit and vegetables, frozen foods and meat, and every prison is bound by these contracts. However, Highdown can buy new products if there is sufficient demand and if the supplier can source them at the agreed price.

There is no extra cost in the provision of healthy balanced meals without hidden salts and additives. Anecdotally, this appears to benefit prisoners in their physical and mental health, as well as being cost-effective to HM Prison Service³⁰⁴.

301 www.dh.gov.uk/en/Managingyourorganisation/Leadershipandmanagement/Healthcareenvironment/DH_4116450

302 Ratings of the quality of food are based on self-assessment against a set criteria; the Department of Health Patient Environment Action Team, comprising NHS staff, patients and members of the public, undertakes selective visits to hospitals to check the quality of the ratings and progress on food and other measures such as cleanliness

303 Department of Health, Patient Environment Action Team (2005) *Assessment Results by Hospital*

304 Information supplied by Highdown Prison

24 Food in care homes has improved: 83% of homes met the requirements for meals and mealtimes in 2005, compared with 78% in 2003 (standards include having three full meals a day and catering for special diets). Voluntary care homes and those run by local authorities outperform those run in the private sector on these standards. However, given that the standards do not cover the nutritional or other quality aspects of the food itself, this does not mean that food provided by the state is better than that in the private sector³⁰⁵.

25 Prison food has also got better over the last 10 years. Research showed that, on the whole, meals offered contained most of the vitamins and minerals necessary for a daily diet. The number of prisons meeting over 80% of the standards required of prison food, as measured by the Standards Audit Unit of HM Prisons, increased from 66% in 2003–04 to 81% in 2004–05³⁰⁶. This compares favourably with the last report on prison food in 1998 by the Committee of Public Accounts, which made a series of recommendations to improve the quality of prison food³⁰⁷. Food offered to prisoners is in line with the FSA's recommendations on healthy eating³⁰⁸. Prisoners are offered a variety of choices, including halal, vegan and vegetarian options. An example of how healthier prison catering is being provided at Highdown Prison is given in Box 6.1.

26 Local authorities, further education colleges and universities offer a wide choice of food, including healthy options. The procurement of food, and any nutritional or environmental standards, is the decision of each institution. One recent study found that 82.7% of local authorities claimed to have introduced sustainable policies in relation to food³⁰⁹.

But the quality of public sector food is not meeting expectations of better public services, and better food more generally

27 With individual institutions responsible for their own catering arrangements, data on user satisfaction and service quality are often very hard to find. There are, for example, no common arrangements for looking at the quality and nutritional standards of food provided across central government departments and their agencies, which provide catering services to around half a million people. But for some public services, particularly in the NHS, there are some survey and inspection data that provide some insights into status and progress.

305 Commission for Social Care Inspection (2006) *Highlight of the Day? Improving meals for older people in care homes*

306 National Audit Office (2006) *Serving Time: Prisoner diet and exercise*

307 Ibid

308 FSA (2001) *Balance of Good Health*

309 Meat and Livestock Commission (2007) *Local Education Authorities Caterers Sustainability Study*

- 28** Recent surveys by Which? and the Healthcare Commission suggest that the quality of hospital food is widely perceived to be poor:
- 46% of patients rate hospital food as poor or fair³¹⁰; and
 - 29% of NHS patients in one survey said the food was so bad they had to buy their own or get someone to bring it in³¹¹.
- 29** In care homes, residents may not have access to a nutritious and balanced diet, and promotion of healthy options is often lacking because standards for meals do not cover nutritional content. Furthermore, many homes are not even meeting the basic criteria for mealtimes, provision of snacks, etc.
- 30** Between April 2004 and October 2005 the Commission for Social Care Inspection upheld 453 complaints about food across all regulated care services. The most common themes were the quality (28%), choice (16%) and limited availability (27%) of food³¹². The true number of actual complaints made may be higher, given problems with collecting and storing data on complaints. Furthermore, older people are less likely – or may not be able – to complain of ratings of food, which may mean that quality issues are under-reported. Much of the evidence of poor-quality food is anecdotal, and this in part reflects the subjectivity of ratings of the quality of food.
- 31** Some 28% of patients in hospitals and 19% in acute mental health hospitals were found to be at risk of malnutrition on admission to a nutritional screening programme³¹³ and 30% of public sector care home residents are at risk of malnutrition³¹⁴. Such problems risk delaying the recovery and exacerbating the existing health conditions of patients and residents, because some of those in the care of the NHS and other care services, especially older people, are malnourished when admitted, and the nature of their condition means it is difficult for them to be properly nourished. Malnourished and underweight patients may require special diets containing energy-dense foods and help with feeding. However, poor-quality food during the duration of a stay will do little to remedy such problems.
- 32** Nutritional consultants to a National Audit Office (NAO) study on prison food found that average levels of salt in prison food were far above recommended levels – up to 93% above in the case of meals for male prisoners. Dietary fibre from fruit, vegetable and cereals was low³¹⁵.
- 33** Schools are the only part of the public sector where a fully integrated system is in place, mandated to deliver good food in support of a balanced diet for schoolchildren. Food provided by schools and local authorities has to be nutritious. The standards detail foods that must be provided (e.g. fruit and vegetables),

310 Healthcare Commission (2006) *Patient Survey*

311 Which? (2007) *Impatient for Change: Hospital food*

312 Ibid

313 British Association for Parental and Enteral Nutrition (BAPEN) (2008) *National Screening Survey: Nutrition screening survey and audit of adults on admission to hospitals, care homes and mental health units*

314 Ibid

315 National Audit Office (2006) *Serving Time: Prisoner diet and exercise*

those that must be restricted (e.g. chips can only be served twice a week) and those that are not allowed (e.g. confectionery). Standards are based on the latest available scientific evidence. Profiling of average nutrient intake is encouraged to ensure that intake is close to recommendations, and will become mandatory in schools in the next two years.

- 34** The experience in schools shows that a multi-faceted approach, engagement and resources are required for success. In planning the transition to a healthier food environment, it is necessary to strike a balance between sufficient speed, to overcome inertia to change, and adequate time for the supply chain to develop the capacity to deliver change.

- 35** Elsewhere in the public sector in England, food-based and nutrient-based standards are not mandatory (see Table 6.1). The Government committed itself to developing nutritional standards for the NHS, the Ministry of Defence and other public bodies in the *Choosing Health* White Paper of 2005³¹⁶. However, although the FSA has made progress in developing a number of guidelines on nutritional standards across the public sector, this commitment has not been comprehensively taken forward by the Government.

Table 6.1 Nutritional standards in the public sector

Sector	Nutritional requirements in England
Schools	Regulations (Nutritional Standards and Requirements for School Food) setting food-based standards for school lunches came into force in September 2006 and standards for other school food in September 2007; nutrient-based standards will come into force for primary schools in September 2008 and for secondary schools in September 2009.
Hospitals	The NHS Plan (2000) has required all hospitals to have nutritional policies in place. Hospital dietitians are expected to work closely with catering staff and contractors in hospitals to provide expertise in food, nutrition and health. Nutritional policies should be based on British Dietetic Association advice, the Department of Health (DH) Nutrition Action Plan and the Council of Europe's 10 key characteristics of good nutritional care in hospitals. The National Patient Safety Agency measures the quality of hospital food annually via Patient Environment Action Team assessments.
Prisons	Prison food is governed by Prison Service Order PSO 5000, which covers all aspects of catering, food hygiene and nutrition. Nutritional content is based on the standards set in the Dietary Reference Values for Food Energy and Nutrients for the UK (DH 1991).

316 Department of Health (2005) *Choosing Health: Making healthy choices easier*

Table 6.1 Nutritional standards in the public sector (continued)

Sector	Nutritional requirements in England
Care homes	<p>National minimum standards are set in the Care Homes Regulations 2001. The regulation is that 'service users receive a wholesome, appealing, balanced diet in pleasing surroundings at times convenient to them'. The standards apply to food provision (having three meals a day, the provision of snacks) rather than to nutritional content. The Caroline Walker Trust and the FSA have published nutritional and practical guidance covering older people in residential care.</p> <p>The National Association of Care Caterers provides standards for Meals on Wheels that can be adopted by local authorities and manufacturers. The standards include nutritional information on the needs of older people.</p>
Early years facilities	<p>The Education Regulations 2007 (Nutritional Standards and Requirements for School Food) provide requirements for school lunches provided at maintained nursery schools and nursery units within primary schools. The Early Years Foundation Stage sets down a requirement that, where children are provided with meals, snacks and drinks, these must be healthy, balanced and nutritious.</p>
Further education	<p>Each college sets its own requirements with contractors or in-house providers.</p>
Higher education	<p>Each college sets its own requirements with contractors or in-house providers.</p>
Government departments	<p>Each government department sets its own requirements with contractors or in-house providers. Departments with voluntary standards use different criteria, and many of these are at the discretion of the caterers.</p> <ul style="list-style-type: none"> • Department for Children, Schools and Families menus have one meal per day that meets the standards for food in schools (these standards are food based only, not nutrient based), and a 'traffic light' labelling system for other hot foods so that customers can compare healthy options. • Defra promotes a balanced diet, and chips are served no more than twice a week (although they are available on request). All food is freshly prepared; vegetables are steamed, or served without salt.
Galleries and museums	<p>Each establishment sets its own requirements with contractors or in-house providers.</p>

- 36** On health and environment, there is no shortage of guidance:
- The FSA, the National Association of Care Catering and the Social Care Institute for Excellence all offer guidelines and advice on standards for older people in care homes.
 - The Public Sector Food Procurement Initiative, managed by Defra, is (among other activities) developing standards for sustainable food and refers to FSA guidelines on nutritional standards.
 - The FSA has developed guidelines for caterers in the delivery of healthy, balanced meals; guidelines have been adjusted to take into account the needs of vulnerable groups (e.g. older people).
- 37** Indeed, *Improving Nutritional Care: A joint Action Plan (2005)*³¹⁷ suggested that the volume and complexity of guidance, case material and best practice contributes to confusion about what guidance is appropriate or how it should be implemented. And, notwithstanding all the guidance available, one NAO study in 2006 found that of those organisations surveyed only 42% had any form of minimum nutritional standards in place³¹⁸.
- 38** Despite the efforts of many to improve performance, it is hard to see public sector food as a whole being transformed without stronger leadership and support for public sector institutions to change. There is reliance on advice, voluntary guidelines and reform of the procurement system, but their impact is inevitably limited while demand drivers remain unchanged. Beyond schools, the incentives for
- change across the system as a whole are weak. Cost pressures can exert a downward pressure on the quality of food. In some cases, limited skills and experience in food procurement present a barrier to improvement. The result is wide variation in the quality of food on offer across the public sector.
- 39** In its 2006 report on public food³¹⁹ in England the NAO found that this variation was associated with widespread inefficiencies. It found that public sector procurement could make £224 million in efficiency savings each year by 2010–11 through a number of measures, including savings of £80 million a year by addressing fragmented purchasing and £40 million by reducing the wide differences in prices paid by public sector organisations for the same goods.
- 40** Fragmentation is the downside of budgetary autonomy. It means that purchasing power is severely diluted. Better collaboration between organisations on a local or regional basis, or within sectors, would allow public bodies to get better prices from suppliers. The NAO found that the largest catering firms may be earning up to £95 million in supplier discounts and rebates (e.g. ‘hello payments’ and marketing support) which the public sector could avoid through better procurement practices³²⁰. Agreed standards, for example on food and nutrition, would also mean that caterers would be clearer about the outcomes that the public sector wanted, and therefore better able to meet their customers’ needs.
- 41** Since the NAO report, a number of procurement initiatives have been established to address the complexities of public sector

³¹⁷ Department of Health (2005) *Improving Nutritional Care: A joint Action Plan*

³¹⁸ National Audit Office (2006) *Smarter Food Procurement Survey, Market and Opinion Research (MORI)*

³¹⁹ Ibid

³²⁰ Ibid

food procurement. The Office of Government Commerce has set up a 'Food Strategy Team' to bring together Food procurement expertise, align procurement practice with policy goals and deliver whole-life efficiency and value for money.

- 42** A stronger common approach to supporting balanced, healthy menus would reach devolved services more effectively. Depending on its ambition and scope, a new approach to public food could reach millions of people. It could also transform the UK's catering and vending markets.

6.4 A new promise on public sector food

- 43** The Government is already taking action to transform the quality of food served by public bodies in England, but the pace and scale of change have to increase. The prize on offer is better food, more efficient procurement, lower environmental impacts, and healthier, happier consumers.
- 44** Access to healthy, nutritious food should ultimately apply across England, not just in schools but in hospitals, care homes, prisons and in public workplaces from Whitehall departments to local government. This could have a positive direct impact on the diets of millions, and send a powerful signal to the wider food service market that social norms have changed.
- 45** This report therefore proposes to develop a new 'Healthier Food Mark' which would be awarded to catering services in the public sector that met specified standards covering

food and its preparation. The FSA's guidance and other existing guidelines for catering institutions provide a sound foundation for standards of provision across the public sector, but the criteria (standards) associated with the award will need to vary in some instances.

The nutritional balance of meals appropriate to care homes for older people is different from that applicable to standards for staff canteens, for example.

- 46** The criteria for the new Healthier Food Mark should cover:
- the design of menus – which should be nutritionally balanced, appetising and enjoyable, and built around choice and variety;
 - sourcing of ingredients that are lower in saturated fat, salt and added sugar; and
 - preparation and presentation of food, including portion sizes.
- 47** The criteria will also include measures to improve the environmental sustainability of the food procured – in the design and balance of menus, and in the procurement of ingredients (such as adopting the existing Public Sector Food Procurement Initiative guidance on sustainably sourced fish³²¹). Criteria should be updated as evidence on what constitutes a low-impact diet becomes clearer.
- 48** The Healthier Food Mark is intended to complement the good work already happening across the public sector to improve the quality of food provided, such as the Public Sector Food Procurement Initiative and the Nutrition Action Plan.

³²¹ Defra (2007) *Catering Services and Food Procurement Toolkit: Template invitation to tender specification*

- 49** The Government will need to examine how procurement systems can encourage sourcing from caterers that are able to offer services consistent with the proposed standards. The public sector accounts for about 70% of the so-called cost-based catering sector in the UK and about 30% of all meals served outside the home. Catering can be provided in-house or, more commonly, can be purchased from an external supplier. The market is relatively concentrated: the largest five catering companies have 85% of the workplace catering market. Contracts are often worth millions of pounds and may last for up to 20 years. This initiative should not affect efforts to make public catering and supply contracts accessible to small-scale providers.
- 50** The Healthier Food Mark should in due course include best practice on vending and food service on the public sector estate, based on lessons learnt in schools and public institutions that have policies on healthy vending, service outlets and on-site franchises.

Action 6.1: Improving the nutritional standards and environmental sustainability of food served in the public sector in England

The Government will develop a scheme to promote a Healthier Food Mark in England to signal where public sector caterers are providing healthier, lower-impact food. The Mark will be awarded to participating public sector institutions that achieve specified standards for their catering services³²².

The initial focus of the Mark will be on meeting general guidelines on food (e.g. servings of fruit and vegetables, meat and fish), macro-nutrients (fat and added sugar) and salt. Caterers will also be asked to meet agreed environmental standards as part of the Mark's criteria. Guidelines on making the procurement of food more sustainable will be developed for this purpose, building on the work of the Public Sector Food Procurement Initiative.

Public bodies will be invited to consider the requirements of the Mark in procuring food contracts. Guidance will be issued to assist participating caterers in the application of these standards.

Adoption of the standards required to achieve the Healthier Food Mark will be voluntary. The Mark will be developed and piloted in central government staff canteens, HM Prison Service and NHS services, to assess its practicality and impact in each institutional setting. Following these pilots, the Government will develop options for rolling out the scheme across the public sector in England.

Subject to the development of proposals, experience in the voluntary phase and consultation, and an assessment of the Mark's financial impact, the Government will consider whether compliance should be made compulsory by 2012 for central government departments and their agencies and for prisons in England. Government

³²² The development of the Healthier Food Mark should draw on the lessons learnt by locally run schemes such as the Healthy Choice Award (a joint local authority and primary care trust award for food outlets that meet food safety and healthy food standards) and the Scottish Health Living Award (a national award for the food service sector in Scotland that rewards caterers who make it easier to eat healthily when eating out)

departments will undertake an analysis of the cost implications of meeting the specified standards, including an estimate of the possible effect on demand and income generation. As the scheme progresses, all public bodies in England will eventually be encouraged to sign up to this promise of better food on the public plate. Schools and any early years provision covered by schools would automatically qualify for the Mark, unless Ofsted inspectors specifically stated in an inspection report that the school's approach to healthy eating was unsatisfactory.

The programme of work required to support the introduction of the Healthier Food Mark will be led by the Department of Health, with contributions from other relevant departments. The Government will explore the possibility of using an external standards body to recognise the Healthier Food Mark.

- 51** In developing these proposals, consideration will be given to two key questions:
- How far is a centralised approach warranted, given devolved budgetary autonomy and decision-making – whether in local government, the NHS or prisons?

- How far should any approach, such as a move towards food and nutritional standards, constrain or edit the selection of food on offer?

- 52** In line with the recent Next Stage Review, the Government expects improvements in the NHS to be locally and not centrally driven. The aim of the Healthier Food Mark is to support those NHS facilities adopting the scheme to provide healthier food rather than imposing new burdens upon them.

6.5 The case for collective action

- 53** Improving the quality of food provided from the public purse will help to reduce the burdens of diet-related ill health on the NHS, other care services and wider society. Mitigating the causes of poor health and reducing the burden on the taxpayer, now and in the future, provides a clear rationale for government intervention, centrally and locally.
- 54** The Department of Health and the FSA have estimated that, across the entire population, meeting national nutritional guidelines would generate a benefit worth £19.9 billion each year in quality adjusted life years³²³. One study estimated that food-related ill health cost the NHS £7.7 billion in 2007 – nearly 10% of the total cost of the NHS³²⁴. Public sector food policy can influence consumption of salt, fruit and vegetables and other key dietary parameters and play a part in helping to reduce these costs.

³²³ Ofcom (2006) *Impact Assessment Consultation on Television Advertising of Food and Drink to Children*, joint FSA/Department of Health analysis, Annex 7

³²⁴ Rayner M and Scarborough P (2005) *The burden of food related ill health in the UK*, *Journal of Epidemiology and Community Health*, 59, 1054–7

- 55** Greater commonality of approach across the public sector in England in procurement of food would mean:
- tenders and contracts would carry similar requirements;
 - products supplied to the public sector would be less varied in specification and easier to quality assure;
 - suppliers would be able to respond in a single common way to all public sector tenders; and
 - suppliers and markets would be better able to plan ahead to meet known government requirements.
- 56** Commonality could also orientate £2 billion of spending on food catering towards more sustainable and seasonally procured food, giving real public leadership on an agenda on which the Government is engaging industry and the public.
- 57** Although there may be cost implications of such a change, a process built around common standards should lead to efficiencies in the procurement process that, overall, would offset any increases in the cost of ingredients or training. Efficiency savings in the procurement of public sector food are already being made. The NAO's report on public food noted that: 'increasing efficiency can have a positive impact on sustainability and nutrition by enabling organisations to use cost savings in some areas to help finance improvements in others'³²⁵.
- 58** Changes to menus and options available in canteens could tap the latent demand for better quality, healthier food. This trend towards healthier eating, and demand for foods lower in salt, fat and sugar, is well established in the marketplace, particularly among adults. Surveys of attitudes towards healthy eating show its increasing importance. In the FSA's latest consumer attitudes survey, 89% of respondents said that eating healthily is very important³²⁶.
- 59** Although there may be concerns about demand for better quality, nutritious food tailing off, as in schools, there is no reason why this will be the case if the proposals are introduced in consultation with staff and if staff training is provided where it is needed. Those who are not eating in canteens because of the lack of healthy choices may be encouraged to eat there; those who do already may switch to healthier options.
- 60** Were all public sector food provision to reflect health policy aims, a sizeable 'lead market' could be created, similar to the Government's plans for lead markets in low-carbon goods and services. This could catalyse the implementation of innovative catering and vending solutions, which could then be available to the whole market. Action across the whole of the public sector, rather than in a piecemeal way, could create a powerful demand-side lever in relation to the large contractors that dominate the market. This approach could also complement healthy workplace initiatives.

³²⁵ National Audit Office (2006) *Smarter Food Procurement in the Public Sector*
³²⁶ FSA (2007) *Consumer Attitudes to Food Standards*

Increasing the availability of healthier food options does not mean that certain foods would be banned

- 61** A Healthier Food Mark based on FSA guidelines would not ban foods, but healthier versions of everyday dishes would be much more readily available, as well as healthier menu options. Many of the less healthy characteristics of food are not to do with the food itself but with how it is prepared and served, the size of the portions offered and what individuals themselves add to their food.
- 62** Standards on food and nutrition in schools limit the number of less healthy options (e.g. fried foods) that are served each week and increase the availability of fruit, vegetables and oily fish. Foods that are high in salt, fat or sugar are not prohibited; they are just offered less frequently or prepared differently.
- 63** The FSA's guidelines on food groups (fruit and vegetables, meat, fish, dairy products, starchy foods, foods high in sugar and fat) for those providing food to adults are highly flexible and allow a wide variety of menu options. For example, on bread, cereals and other starchy foods, some of the guidance³²⁷ is:
- that starchy foods should make up about a third of the daily diet;
 - to offer a variety of breakfast cereals (preferably fortified), porridge and/or bread at breakfast; and
 - to offer a variety of starchy foods with main meals, including potatoes, rice, pasta, noodles and other grains.
- 64** FSA guidelines on nutritional requirements are that food should meet a target recommendation for macro-nutrients (total and saturated fat, salt and sugar) and micronutrients (e.g. iron). Guidelines include tips on how to choose foods, but also how to cook and serve food – for example, avoiding pre-dressed salads or vegetables with butter, and choosing thick-cut chips or potatoes wedges, which absorb less oil when cooking than thin-cut chips, or oven chips.
- 65** Example menus provided online by the FSA show the sorts and amounts of food and drinks that could be served to meet the nutrient guidance and food-based advice³²⁸. The current menus adopt dishes that are close to what is currently available in institutions and include an appropriate level of choice for customers. These example menus also include at least five portions of a variety of fruit and vegetables a day and two portions of fish a week, including one portion of oily fish, in line with government healthy eating advice.

327 FSA (2008) *Guidance on Food Served to Adults in Major Institutions*, www.food.gov.uk/news/newsarchive/2007/oct/publicinstguide

328 Ibid

7 Delivering the Government's vision

- This report has set out a vision and strategic policy objectives to underpin future policy on food and a series of measures to realise them.
- The Government has accepted all the recommendations in this report, which will be taken forward as government policy.
- The Prime Minister has asked the Cabinet Office to establish and support a Food Strategy

Task Force to monitor ongoing developments in the food system and food markets, to drive forward implementation of all the measures and to publish regular reports on progress.

- The action plan in this chapter sets out the departments responsible for each measure and the expected timescales for delivery.

- 1 The UK Government has accepted the recommendations for action in this report. This chapter sets out how it will implement the recommendations. It describes:
 - new delivery arrangements for food policy;
 - plans for reporting regularly on progress in implementation;
 - resource implications;
 - roles and responsibilities; and
 - actions – what will be done by whom and by when.

7.1 New delivery arrangements

- 2 In view of the developments in food markets, globally and nationally, effective, action-orientated and coordinated work across government to address food policy issues is clearly a priority. Price volatility in food markets and aspects of food security, both domestic and international, are expected to continue to have a high profile and thus demand focused action. The Government needs to be in a position to anticipate what challenges might

lay ahead and to be able to respond promptly and coherently to issues as they arise.

- 3 There is also a longer-term need to make sure that the multiple, and sometimes competing, cross-cutting issues facing food policy are managed appropriately. Achieving the different objectives for food policy in an integrated way requires effective, joined-up working.
- 4 To achieve these outcomes the Government needs to have stronger arrangements in place to deal with cross-cutting issues.

Immediate actions

- 5 In the short and medium term, new arrangements are needed to bring together key departments to ensure that food policy issues are well managed across Whitehall. It is proposed that a task force should be established to help orchestrate the UK's response to developments in international food markets, to monitor the outlook for food security and to drive through the recommendations made in this report.

Action 7.1: A Food Strategy Task Force

To ensure that different parts of government work effectively together to address the challenges raised by trends in global food markets and the issues raised by this report, the Prime Minister has asked the Cabinet Office to establish a cross-government Food Strategy Task Force. Chaired and supported by the Cabinet Office, the Task Force will bring together senior officials on a regular basis from the Department for the Environment, Food and Rural Affairs (Defra), the Department for Business, Enterprise and Regulatory Reform (BERR), HM Treasury, the Department of Health, the Department for International Development (DfID), the Department for Children, Schools and Families and the Food Standards Agency (FSA). Other departments will be represented on the Task Force as needed.

The Task Force will:

- oversee and coordinate work on food issues across government, including the Government's medium-term response to the developments in international food markets;
- drive forward delivery of the measures announced in this report;
- join up food policy through improved coordination and communication of relevant activities in different government departments; and
- ensure that common positions are reached on issues relevant to supporting delivery of low-impact, healthy, safe food and that those positions are properly disseminated.

The work of the Task Force will be transparent, and updates and reports on its work and impact will be published on an annual basis.

Task Force sub-groups, also constituted on a cross-Whitehall basis, will be tasked with taking forward individual key actions from this Strategy Unit report (and other issues if required). These sub-groups will be chaired by the department that has the lead responsibility on that proposition, and progress will be reported through the Task Force.

- 6 The role and responsibilities of the Task Force will be reviewed in 2010 to ensure its continuing relevance and effectiveness.

Longer-term actions

- 7 In the longer term, the Government should consider the arrangements needed to incentivise the effective delivery of its food policy objectives within the performance management framework covering the next Spending Review period (2011–14).
- 8 The Government announced a new performance management framework at the Comprehensive Spending Review in 2007. This includes 30 Public Service Agreements (PSAs), which set out the key priority outcomes that the Government wants to achieve for the Spending Review period from 2008 to 2011, each supported by a handful of outcome-focused indicators. Many of these new PSAs and indicators are cross-governmental, requiring departments to work together towards an agreed outcome.

Action 7.2: Improving food policy outcomes through the performance management framework

The UK Government's performance management framework, including the new cross-departmental PSAs, provides a means of ensuring that efforts are harnessed across Whitehall towards achieving the Government's top priorities.

The Government will consider how best to incentivise efforts to reduce the public health and environmental harms associated with food and to support the food economy within the performance management framework for the next Spending Review period.

Stronger arrangements are needed to coordinate different departments' own food-related research and to engage fully with Research Councils and others on future food issues

- 9 UK government departments commission research on a wide variety of food-related issues. This work could be better coordinated to ensure that gaps are filled and that available resources are used to maximum effect. Research should focus on areas that explore the links – and tensions – between the different objectives. For example, research into what a healthy, low-impact diet looks like for different parts of the food chain, the links between

food production and biodiversity, and the links between seasonal food and healthy eating, are just some of the areas that a joined-up research agenda could focus on in the future.

- 10 One of the first key tasks of the Food Strategy Task Force should be to oversee the closer integration of major research programmes that improve the evidence base for a safe, healthy and low-impact food system, through preparation of a joint research strategy document. This effort to join up publicly funded food research should extend out to Research Councils and other funders.

Action 7.3: A joint research strategy for food

Closer coordination of the food-related research supported by different parts of government would help to ensure that policy is supported by the best evidence.

The Government will put in place a cross-departmental strategy to ensure the coordination of departmental research and development relating to safe, low-impact food and a healthier diet. The strategy will identify priorities for research, monitoring and dissemination arrangements. The strategy will define a 'virtual' research programme that cuts across the work of individual departments. There will also be engagement with Research Councils and other funders.

7.2 Reporting

- 11 Progress reports updating the status of actions identified in this report (listed in full in Table 7.1) should be reviewed by the Food Strategy Task Force on a quarterly basis.
- 12 Progress should be publicly recorded in a published annual report. This report should also include an assessment of key developments in the food system over the period.

Action 7.4: Public reporting on progress

In summer 2009 and summer 2010 the Food Strategy Task Force will report to the Prime Minister on progress made in implementing the actions identified in this report and on key developments in the UK food system. These reports will be made public.

7.3 Resource implications

- 13 There are no additional public expenditure implications of this report within the current Spending Review period (2008–11). The actions set out in this report will be taken forward within departments' existing budgets.
- 14 The financial implications of making the Healthier Food Mark compulsory across the public sector in England will be assessed in the run up to the next Spending Review and as part of developing plans for primary legislation. This will follow the development of minimum standards for food served across the public sector and will draw on the lessons from the period of voluntary operation.

7.4 Clarifying roles and responsibilities

- 15 A common theme in stakeholder discussions conducted for this report was the need for greater clarity from the Government about the division of responsibility between the Department of Health and the FSA, particularly on nutrition policy.
- 16 The status of the FSA as an 'arm's-length', non-ministerial government department working alongside the Department of Health on issues such as nutrition has the potential to create a lack of clarity among stakeholders about which institution leads on particular areas of work.
- 17 The FSA and the Department of Health have in place a concordat³²⁹ that explains how the working relationship between the two institutions is to be managed. Both departments are aware of the need for responsibilities to be clear. This is an area that needs continued vigilance to ensure that communication between departments and between departments and stakeholders continues to work effectively on all food-related issues.

329 www.food.gov.uk/aboutus/how_we_work/concordats

Action 7.5: Clarifying the interface between the Department of Health and the FSA on healthy eating

The Department of Health and the FSA will publish a joint statement clarifying the roles and responsibilities for the Healthy Food Code of Good Practice.

7.5 Action plan

- 18** Table 7.1 lists all the actions contained in this report. It identifies the lead departments accountable for each of the measures together with the expected timeline.

Table 7.1: Action plan

Action Number	Issue	Recommendation	Lead	Implementation
3.1	Strategic policy objectives for food	<p>The Government will adopt the following strategic policy objectives for food:</p> <ul style="list-style-type: none"> • fair prices, choice, access to food and food security through the promotion of open, competitive markets; • continuous improvement in the safety of food; • the changes needed to deliver healthier diets; and • a more environmentally sustainable food chain. 	All departments	Immediate
3.2	A vision and strategy for food	The Government will test and refine the new strategic framework for food set out in this report, as part of an open and collaborative process to be run over the next year.	Defra leading a partnership of Defra, the Department of Health (DH) and FSA	For completion by October 2009
4.1	Making it easier for consumers to access information on a healthy, low-environmental-impact diet	The FSA will expand its current advice to provide a one-stop shop to consumers looking for information and advice on nutrition, food and sustainability, and food safety.	FSA, with input from the Food Strategy Task Force	Programme of work to be published by end October 2008
4.2	Making it easier for consumers to make healthy choices when eating out	The FSA will launch a new programme focused on food eaten out of the home. It will work with food businesses and consumers to understand what information consumers would find helpful when eating out of the home and to improve the nutritional standard of the food on offer.	FSA	Initial proposals to be published by December 2008

Action number	Issue	Recommendation	Lead	Implementation
4.3	Aligning marketing and communications campaigns about food supply chain	The Food Strategy Task Force will ensure that campaigns, public consultations and engagement efforts on food-related issues are better coordinated across departments.	Food Strategy Task Force	Immediate
5.1	Effective competition throughout the grocery supply chain	The Government is currently considering the Competition Commission's recommendations in the final report from its Groceries Market Investigation published in April 2008.	BERR	Summer 2008
5.2	A whole food chain approach to tackling food-borne illness	As part of a comprehensive strategy to prevent food incidents, the Government together with industry will develop a 'whole food chain approach' to identifying the most important and high-risk food safety hazards in the food supply chain and the points at which they can best be controlled.	FSA	Initial paper scoping the issues to be published by December 2008
5.3	Animal feed and the regulation of GM products	Defra, working with the FSA, will publish an analysis of the potential impacts on the UK livestock sector of global trends in GM production. FSA, working with Defra, will publish an analysis of the extent to which changes in the market are putting a strain on the regulatory system for GM products (including animal feed) and the implications for UK consumers.	Defra, FSA FSA, Defra	December 2008 December 2008

Action number	Issue	Recommendation	Lead	Implementation
5.4	Increasing consumption of fruit and vegetables so that more people reach and exceed the 5 A DAY target	DH will target messages aimed at increasing fruit and vegetable consumption in specific population groups who are least likely to consume fruit and vegetables, such as young men and low-income young families. The Government will work with the industry to increase the range of products that will count towards the 5 A DAY target, to improve product placement and the clarity of the message to consumers.	DH	5 A DAY action plan to be finalised by September 2008, to define the process and future milestones
5.5	The future of food production in a low-carbon world	The Government’s Chief Scientific Adviser will commission a major new Foresight project to examine future global food systems. This will explore how the food system and its associated policy framework will need to mitigate and adapt to climate change.	Foresight (Government Office for Science, Department for Innovation, Universities and Skills (DIUS)), Defra, DfID	Project launch in September 2008; completion by end 2009
5.6	A smarter system for calculating greenhouse gas emissions from agriculture	The Government will work towards the introduction of a ‘smarter’ system for calculating greenhouse gas emissions from UK agriculture. This system will be better able to recognise the kind of abatement techniques that will be adopted by farmers as they move to cut greenhouse gas emissions.	Defra	Research completed by 2013 in time to support a new global climate change agreement
5.7	Action to transform European agriculture’s response to the risks, responsibilities and opportunities of climate change	The Government will promote the role of agriculture in both the mitigation of and adaptation to climate change. It will work closely with other major partners, such as Germany and France, to build consensus on priorities and secure effective action.	Defra	European Union event with key partners in autumn 2008

Action number	Issue	Recommendation	Lead	Implementation
5.8	A new food packaging strategy for England	A new strategy for dealing with food packaging waste in England will be developed, set within the framework provided by the Waste Strategy for England (2007). It will aim to get incentives better aligned along the food chain to encourage more prevention of excess packaging and more re-use and recycling. It will aim also to improve information flows between food manufacturers, retailers, consumers, local authorities and re-processors.	Defra, BERR	October 2008
5.9	Reducing food waste and recovering energy	The Government will work with the Waste & Resources Action Programme (WRAP) and the food industry to secure a new voluntary agreement to cut significantly the amount of food wasted in the supply chain and in the home.	WRAP with Defra, FSA	Launch dialogue with industry September 2008, for conclusion by February 2009
6.1	Improving the nutritional standards and environmental sustainability of food served in the public sector in England	More nutritious, environmentally sustainable food will be delivered through a new 'Healthier Food Mark' linked to standards for food served in the public sector. The standards will help in delivering better food with existing resources. The scheme will be voluntary initially and piloted within central government, HM Prison Service and NHS services. Government will then consider if compliance should be made compulsory in England for central government and for prisons. As the scheme progresses all public bodies in England will eventually be encouraged to sign up – ensuring a minimum standard of healthier food across the public sector	DH, FSA	Voluntary scheme defined and ready for piloting by December 2009; possible mandatory standards in place by 2012 for central government, its agencies and prisons

Action number	Issue	Recommendation	Lead	Implementation
7.1	A Food Strategy Task Force	The Cabinet Office will chair a new cross-Whitehall Food Strategy Task Force which will coordinate departments’ work on food issues and the Government’s medium-term response to developments in international food markets, and will track and ensure progress in delivering the measures in this report. Sub groups of the Task Force will take forward individual key actions on a cross-Whitehall basis, each with a lead department.	Cabinet Office	Established by October 2008; reviewed in December 2010
7.2	Improving food policy outcomes through the performance management framework	The Government will consider how best to incentivise efforts to reduce the public health and environmental harms associated with food and to support the food economy within the performance management framework for the next Spending Review.	Food Strategy Task Force, Cabinet Office	In advance of the next Spending Review
7.3	A joint research strategy for food	The Government will put in place a cross-departmental strategy to ensure coordination of departmental research and development relating to safe, low-impact food and a healthy diet, working with the Research Councils and other funders.	Defra lead with DIUS, DH, FSA, DfID plus other government departments, Research Councils and other funders	Launched September 2008, published by July 2009

Action number	Issue	Recommendation	Lead	Implementation
7.4	Public reporting on progress	The Food Strategy Task Force will report to the Prime Minister on progress made in implementing the actions identified in this report and on key developments in the UK food system in summer 2009 and summer 2010. These reports will be published.	Food Strategy Task Force	First progress report by July 2009; second progress report by July 2010
7.5	Clarifying the interface between DH and the FSA on healthy eating	DH and the FSA will publish a joint statement clarifying the roles and responsibilities for the Healthy Food Code of Good Practice.	DH, FSA	End July 2008

Annex A – Project staffing

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Annex B – Acknowledgements

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British Dietetic Association
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British Soft Drinks Association
BSI British Standards
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Forum for the Future
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The Future Foundation
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GM Freeze
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Marks and Spencer plc
Mars UK Ltd
McDonald's Restaurants Limited
Wm Morrison Supermarkets Plc
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Mintel International Group Ltd
The National Association of British Market Authorities
The National Farmers' Union
National Heart Forum
National School of Government
National Social Marketing Centre
Natural England
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The Royal Society
The Royal Society of Chemistry
Rural Economy and Land Use Programme, University of Newcastle
Sainsbury's plc

School Food Trust
Scotland Food & Drink
Scottish Food and Drink Federation
Sodexo
Sustainable Development Commission
The Scottish Government
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Tesco plc
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Ulster Farmers' Union
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The Vegan Society
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