

The Right Ingredients

Sustainable Development Commission Scotland response to the discussion on a National Food Policy for Scotland

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Executive Summary

The Right Ingredients presents evidence and recommendations to the Scottish Government to help create a sustainable National Food Policy.

This document draws on the existing evidence base, including the Sustainable Development Commission's extensive work on sustainable consumption, to highlight opportunities for Scotland. It shows how food production and consumption are intrinsically connected with our environment, economy and society - the three 'pillars' of sustainable development. These pillars must be addressed simultaneously, rather than through separate policy initiatives, if progress is to be made towards the Scottish Government's five strategic objectives.

The Sustainable Development Commission (SDC) is the Government's independent advisory body on sustainable development. The SDC reports to the Prime Minister and First Ministers of Scotland and Wales, and the First Minister and Deputy First Minister in Northern Ireland. Established in 2000, the SDC is chaired by Jonathon Porritt and comprises 19 Commissioners supported by a Secretariat based across the UK. Our Scottish team is based in Edinburgh.

The SDC's main recommendation is:

Sustainable development should be the overarching framework for the National Food Policy.

To achieve this goal the Scottish Government should address the following key issues.

To avoid confusion and misunderstanding of their goal the Scottish Government should develop a definition of sustainable food. The definition should:

- ensure safe, healthy and nutritious food for consumers in shops, restaurants, schools, hospitals etc
- provide a viable livelihood for farmers, processors and retailers, whose employees enjoy a safe and hygienic working environment, whether in the UK or overseas
- respect biophysical and environmental limits in its production and processing, while reducing energy consumption and improving the wider environment; it also respects the highest standards of animal health and

- welfare, compatible with the production of affordable food for all sectors of society
- support rural economies and the diversity of rural culture, in particular through an emphasis on local products that keep food miles to a minimum
- meet the needs of less well-off people.

The Scottish Government should develop a code of practice for **fair supply chains**. Encouraging fairer supply chains within the food system would provide the opportunity to increase social justice, community cohesion and environmental sustainability.

Any future policy must include action to help meet the target of an 80% cut in emissions by 2050. Therefore it is essential that the Scottish Government develops a **strategic plan for greenhouse gas emissions** across the whole food supply system, including:

- developing a long-term vision for reducing greenhouse gas emissions from farming; and implementing policies to support farmers and the food supply chain in finding appropriate solutions to agricultural and food waste, including the use of anaerobic digestion
- highlighting the risks of carbon emissions and opportunities for sequestration, and conducting research on emissions reduction for the Scottish Government's forthcoming discussion of land use
- The Scottish Government must take forward its commitment to zero waste by:
 - working with SEPA and WRAP to ensure a consistent approach on waste and resource efficiency across the supply chain
 - working with retailers, manufacturers and others to develop initiatives to reduce packaging and food waste
 - working with willing local authorities to increase recycling and phase out singleuse plastic carrier bags
- encouraging a move from road to rail distribution of food and the development of local supply chains.

Transport and planning have a huge impact on what we eat as well as how and where we purchase our food. Joined-up policies should be developed to promote health, reduce pollution and help combat the economic costs of congestion.

- The Scottish Government should work to reduce car dependency for shopping, for example:
 - In partnership with Regional Transport
 Partnerships and Local Authorities,
 pursue planning policies that reduce car
 use for access to supermarkets and other food providers
 - In partnership with supermarkets, identify ways in which the transport impact of supermarket shopping can be reduced through for example increasing public transport access and actively encouraging/prioritising 'in town' development - the approach set out in Planning Advice Note (PAN) 59
- The Scottish/UK Government and Transport Scotland to create a framework which will promote more local food distribution networks, and encourage greater use of rail freight
- The Scottish Government, Scottish Enterprise/HIE and Local Authorities to provide greater support for projects that work with communities to improve access to healthy local food.

There has been much discussion recently in the media of the importance of **local and seasonal food**. However, there is also much confusion about what 'local' means and whether this is always the most sustainable option. Therefore the Scottish Government should develop an enforceable definition of local food.

The Scottish public sector spends £85 million per year on **food procurement**. However, very little of this procurement currently specifies the requirement for fresh ingredients or seasonal produce. There are many examples of public sector contracts to deliver food which is healthier and locally sourced. Therefore the SDC recommends the Scottish Government should:

 work with public sector procurers and retailers, through the Scottish Procurement Directorate, to develop a guide to

- sustainable sourcing that incorporates full life-cycle analysis, building on Defra's work on product roadmapping
- adopt a strategic set of procurement priorities to make sustainable consumption visible to the public e.g. a clear shift in public sector catering towards an emphasis on less meat-intensive diets maximising the use of fresh, seasonal fruit and vegetables and promoting more sustainable fish species
- work with public bodies to minimise food waste, increase composting and where subsidised food is provided for staff, subsidise healthy food.

The role of **meat and fish**, both in our diets and as contributors to the Scottish economy and to climate change, must be addressed. Therefore the SDC recommends the Scottish Government should:

- work with the FSA in its review of advice on sustainable fish consumption towards a recommendation that people should be consuming more oily fish from sustainable fish stocks and less whitefish
- continue to fund public-facing initiatives to increase seasonal consumption and also to help familiarise people with lesser known meat cuts and well-managed fish species
- work with the farming and food supply chain to develop roadmaps for sustainable meat, dairy and fish sectors, building on Defra's product roadmapping work.

The way in which food is produced, purchased and consumed has a huge influence on the levels of **obesity and nutrition** in Scotland. In the forthcoming Action Plan on Healthy Weight, Physical Activity and Healthy Eating, the Scottish Government have the opportunity to adopt the Scottish Diet Action Plan Review's proposed "direction of travel" to progress towards sustainable development. In particular:

- Closer integration between the policy goals of improving Scotland's diet-related health and those of social justice, sustainable development and agriculture
- Giving high priority to equality and social justice.

One way of making sustainability easier for consumers is **choice-editing**. Choice editing for sustainability is about shifting the field of choice for mainstream consumers: cutting out unnecessarily damaging products and getting real sustainable choices on the shelves. The result provides customers with a better choice of products, and the assurance that the issues they care about are considered, making it easier to 'do the right thing'. The Scottish Government should harness the choice-editing role of supermarkets to influence consumer awareness on:

- the impact of their food choices on improving diet-related health
- the social and environmental impacts of their food choices.

The global food economy is rapidly changing for several reasons, including a growing world population, climate change and changing diets. This means the National Food Policy will need to consider issues relating to **food security** and the changes Scotland's food economy will need to make now, to be sustainable in the future. The SDC recommends that the Scottish Government see this as an opportunity to build the goal of

sustainable development into the existing food economy.

Scotland's **food culture** has been changing rapidly in recent years. The changing family unit, time pressure and declining cooking skills have all led to significant changes in our relationship with food. However, the pioneering work of *Hungry for Success* has helped to create a positive shift, and should be taken forward to build a sustainable food culture by linking public procurement in schools, hospitals and prisons with ecological food production. The Scottish Government should also explore opportunities with the hotel, catering and tourism industries and secure their engagement with a sustainable National Food Policy.

In conclusion, moving towards sustainable food consumption requires government, businesses and consumers to share responsibility for leading change. This document shows how the Scottish Government must take the lead on matters which are crucial to the future of our food, including climate change, food security and public sector procurement.

The SDC looks forward to working with the Scottish Government to take the forward the recommendations in this submission.

Introduction

The Sustainable Development Commission Scotland (SDC) welcomes the Scottish Government's discussion paper on the future of food in Scotland, *Choosing the Right Ingredients*. The SDC further welcomes the commitment to "a joined-up, national food policy that promotes our economy, health, environment and culture". 1

The development of a National Food Policy for Scotland is timely, reflecting a current and widespread debate; across the UK there are a number of emerging policy initiatives including a Quality of Food Strategy in Wales and the Prime Minister's Strategy Unit review of food and food policy in the UK.

This submission builds on the SDC's previous work on sustainable consumption and production, namely

- I will if you will Towards sustainable consumption (2006)
- You are what you sell. Product roadmapping: driving sustainability (2007)
- Green, healthy and fair A review of the government's role in supporting sustainable supermarket food (2008)

These documents, each of which are briefly summarised below, are included as supporting material to our submission.

The Sustainable Consumption Roundtable - a joint initiative of SDC and the National Consumer Council - brought together experts in consumer policy, retailing and sustainability to examine the issue of consumption. A consumer forum was used to gather evidence on how people understand their own lives and the connections to the world around them. Alongside this, a business dialogue event brought together individuals from a range of UK businesses for debate and discussion on the way forward for sustainable products. The final report, *I will if you will*, gave practical advice to Government on

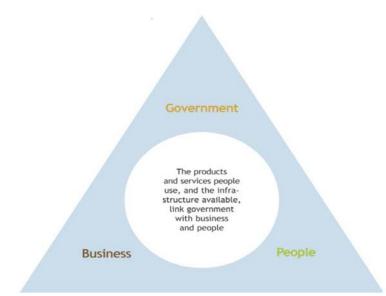
how to 'make it easier' for people to 'live sustainably'. It concluded that only concerted action from government, business and people will achieve a radical shift towards more sustainable consumption.

You are what you sell was developed as the result of one of the recommendations of the Sustainable Consumption Roundtable. It offers practical guidance on using product roadmaps to identify the social and environmental impact of products throughout their lifecycle. This approach can facilitate collaboration between government and business in order to achieve strong and swift improvements in the sustainability of products.

In Green, healthy and fair, the SDC delivered advice to government on the effectiveness of their policies towards the food system and supermarkets, and the extent to which these policies are helping or hindering progress towards sustainable development. The recommendations focused on six priority areas: climate change; waste; water; ecosystems; nutrition and obesity; and supply chain relationships. Green, healthy and fair looks at how to improve the effectiveness of existing policy and to address gaps. The report set out emerging recommendations for the Scottish Government to consider in the development of the National Food Policy including developing a strategic plan for greenhouse gas emissions across the whole food supply system, and harnessing the choice-editing role of supermarkets to influence consumer awareness of the impact of their food choices and improve diet-related health.

I will if you will and Green, healthy and fair both emphasise the importance of developing policies using a partnership approach between business, people and government. Here we focus on the role of government within this 'triangle of change'.

Figure 1 The 'triangle of change'



This submission will focus on the issues which are essential for the National Food Policy to address:

- Sustainable development as the overarching framework for the National Food Policy
- Fair supply chains
- The need for a strategic plan for GHG reductions across the food chain
- Making the links with transport and planning policy
- Limitations of using local food as a proxy for sustainable food
- Sustainable public procurement

Sustainable Development as the overarching framework for the National Food Policy

Food production and consumption are woven through our economy, environment, and society, which are the three pillars of sustainable development. A cross-cutting food policy will therefore address some of the major challenges currently facing Scotland such as obesity, food transportation and agricultural incomes. All are pieces of the same jigsaw. If we assemble them correctly, this will help to create a sustainable Scotland.

Source: Sustainable Development Commission/ National Consumer Council (2006) *I will if you will*

- Meat and dairy production/ consumption, and the sustainability of fish
- Obesity and nutrition
- Choice editing to offer more sustainable options to consumers
- Food security
- Our food culture.

Below, we look at each issue in separate sections, considering current evidence and emerging trends, and, where relevant put forward recommendations to the Scottish Government on how to take the issues forward in the National Food Policy and across government.

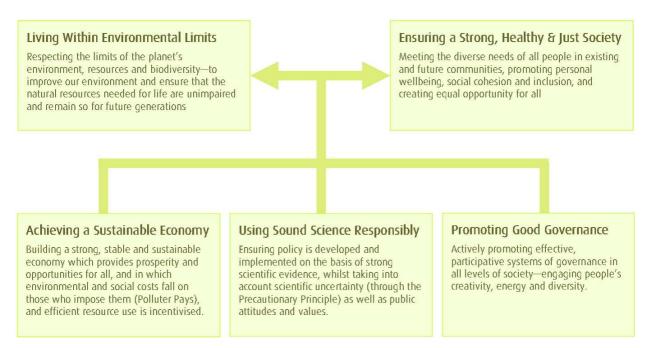
Ensuring policies and strategies are 'joined-up' across previously distinct policy areas and directorates is a challenge for government. It is not a new challenge, nor is it restricted to sustainability issues, though sustainability is arguably the ultimate 'joined-up' challenge.

The SDC and UK Government have agreed a common approach to assessing whether or not policy delivery is sustainable - these are the five principles of sustainable development.

The principles are outlined in the UK Framework for Sustainable Development - *One Future, Different Paths* agreed by the Prime Ministers and First Ministers across the UK. Following on

from *One Future, Different Paths*, these principles were adopted by the Scottish Government in *Choosing Our Future*, Scotland's sustainable development strategy.

Figure 2 The principles of sustainable development



Source: Securing the Future, HMG, 2005

The principles are intended to be applied without 'trade-offs' to find solutions which reconcile the priorities of a strong, healthy, just society while also living within environmental limits. This will be achieved through building a sustainable economy, promoting good governance and using sound science responsibly.

The goal of sustainable development is to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations. The Scottish Government has stated that this goal will be pursued in an integrated way through a sustainable, innovative and productive economy which delivers high levels of employment, and a just society that promotes social inclusion, sustainable communities and personal well-being. This will be done in ways that protect and enhance the physical and natural environment, and use resources and energy as efficiently as possible. ²

The vision for food in *Choosing the Right Ingredients* is framed within the Scottish Government's five strategic objectives and states that "it should make the nation **healthier**, **wealthier and smarter** with production making communities **stronger** and consumption respecting the local and global **environment**." This vision should be considered within the context of the Scottish Government's commitment to sustainable economic growth³ and delivering this through the National Performance Framework.⁴

When pursued simultaneously, the five strategic objectives should enable progress towards sustainable development and hence a sustainable National Food Policy. However, this will only be achieved where there is a mechanism to address tensions between priorities. We recommend that these need to be resolved within a sustainable development framework to achieve an integrated, sustainable solution, rather than elements being 'traded-off'

against one another. For example, government nutrition policies which promote a healthy diet which do not consider the climate change impact of food will not be sustainable (and vice versa).

The table overleaf shows how each of the issues that this submission discusses relates to the five strategic objectives within the framework of sustainable development.

Taking a sustainable development approach to these issues through the National Food Policy will contribute to achieving 12 of the 15 national outcomes, as set out in the National Performance Framework:

- We live in a Scotland that is the most attractive place for doing business in Europe
- We realise our full economic potential with more and better employment opportunities for our people
- We are better educated, more skilled and more successful, renowned for our research and innovation

- Our young people are successful learners, confident individuals, effective contributors and responsible citizens
- Our children have the best start in life and are ready to succeed
- We live longer, healthier lives
- We have tackled significant inequalities in Scottish society
- We live in well-designed, sustainable places where we are able to access the amenities and services we need
- We value and enjoy our built and natural environment and protect it and enhance it for future generations
- We take pride in a strong, fair and inclusive national identity
- We reduce the local and global environmental impact of our consumption and production
- Our public services are high quality, continually improving, efficient and responsive to local needs.⁵

Table 1 Relationship between issues which the National Food Policy must address and the Scottish Government's five strategic objectives

		SCOTTISH GOVERNMENT'S STRATEGIC OBJECTIVES					
		WEALTHIER & FAIRER	SMARTER	HEALTHIER	SAFER & STRONGER	GREENER	
		Enable businesses and people to increase their wealth and more people to share fairly in that wealth	Expand opportunities for Scots to succeed from nurture through to lifelong learning ensuring higher and more widely shared achievements	Help people to sustain and improve their health, especially in disadvantaged communities, ensuring better, local and faster access to health care	Help local communities to flourish, becoming stronger, safer, places to live, offering improved opportunities and a better quality of life	Improve Scotland's natural and built environment and the sustainable use and enjoyment of it	
ISSUE TO BE ADDRESSED BY THE NATIONAL FOOD POLICY FOR SCOTLAND	Fair supply chains	Producers receive a fair share	Producers become more effective sellers		Stronger rural communities – more jobs in local agriculture/food production	Integration of social justice and environmental sustainability	
	Strategic greenhouse gas reduction plan	Investment in renewable technologies	Research and investment in reduced GHG emissions from farming/food production and distribution			Sustainable consumption and production	
	Transport & planning	Reduce need for people and food to travel - sustainable access		Planning encourages walking, cycling	Reduce need to travel - sustainable access	Reduced transport- related emissions	
	Local & seasonal food	Supporting local producers	Reconnecting producers and consumers	Improved access to fresh, seasonal produce	Improved access to fresh, seasonal produce	Reduced transport- related emissions and resource-efficient production	
	Sustainable public procurement	Supporting local producers and small businesses	Nutritious school meals	Nutritious meals in public institutions		Reduced transport- related emissions and resource-efficient production	
	Meat & fish	Supporting local producers and small businesses	Greater awareness of impact of food choices	Health benefits of reduced meat and dairy consumption		Reduced environmental impact from production	
	Obesity & nutrition	Healthier nation leading to greater productivity and reduced health costs	Greater awareness of impact of food choices	Making it easier to make healthy choices		Reduced environmental impact from consumption of fresh, less processed foods	
	Choice editing	Supporting local producers and small businesses	Greater awareness of impact of food choices	Making it easier to make healthy choices		Consumption with lower social and environmental impact	
	Food security	Producers become more competitive	Greater focus on skills and self-sufficiency	Increased consumption of seasonal produce		Consumption with lower environmental impact	
	Our food culture	Greater emphasis on regional food and drink	Greater understanding of Scotland's food culture	Improved nutrition through education and communal eating	Improved local access to healthy food	Consumption with lower environmental impact	

Recommendations

- The National Food Policy and the future vision for food in Scotland should be developed within the framework of sustainable development
- The Scottish Government to develop a definition of sustainable food. We recommend that a sustainable food policy for Scotland is one which:
 - ensures safe, healthy and nutritious food for consumers in shops, restaurants, schools, hospitals etc
 - provides a viable livelihood for farmers, processors and retailers, whose employees enjoy a safe and hygienic working environment, whether in the UK or overseas
 - respects biophysical and environmental limits in its production and processing, while reducing energy consumption and

- improving the wider environment; it also respects the highest standards of animal health and welfare, compatible with the production of affordable food for all sectors of society
- supports rural economies and the diversity of rural culture, in particular through an emphasis on local products that keep food miles to a minimum
- o meets the needs of less well-off people
- The Scottish Government to set up a crossdirectorate programme board to implement and monitor delivery of the National Food Policy and input into future food policy developments⁶
- The Scottish Government to work jointly with UK Government, WAG and NI Executive to develop a roadmap for a UK sustainable food system.⁷

Fair supply chains

Retailer sourcing policies have the potential to contribute to rural communities and the viability of UK agriculture by supporting local/regional/UK producers, as well as reducing poverty internationally through supporting trade with developing countries. 'Fair' relationships within supply chains are necessary to fulfil this potential.

Trade with supermarkets can also play a very important role in international development by contributing to the economies of developing countries. A small but significant amount of fresh fruit and vegetables available in our supermarkets comes from developing countries where agriculture is central to reducing poverty by creating jobs and income. For example, over one million people in rural Africa are supported by the fresh fruit and vegetable trade with the UK, injecting an estimated £200million into rural economies. 9

Civil society-led initiatives, such as Fairtrade and the Ethical Trading Initiative, have been at the forefront of the drive to improve livelihoods and working conditions of producers in developing countries. 10 However, reliance on the voluntary efforts of such movements to build the profile for fairly traded products depends heavily on consumer demand, and masks the real effort that is needed systematically to improve social and environmental performance throughout the product supply chain. Organisations campaigning for international development argue that developing countries often fail to receive a fair share of the amount paid by consumers for their products. 11 Furthermore Fairtrade and similar standards do not address environmental impacts such as water use in agricultural production and the continuing reliance on air freight. Air freight is the fastest growing form of food transport and can generate up to 177 times more greenhouse gases than shipping. 12 Therefore including an environmental dimension in standards would result in a more holistic approach.

In August 2007, External Affairs Minister Linda Fabiani announced that Scotland's international development policy will have "as a goal fairtrade status for Scotland, recognising the value of this to people in developing countries, and the role for the people of Scotland". ¹³ Environment Minister Michael Russell, Minister for the Environment has also reaffirmed Scotland's commitment to International Development and noted that it will continue to play its part in meeting the UN Millennium Development Goals and helping to tackle and eradicate the causes of world poverty which are inextricably linked to the need to act responsibly in relation to the global environment. ¹⁴ However, up until now, the Scottish Government's international development policy has focused on education, health and civil society development with a lesser emphasis on economic development and environmental issues.

In the UK, farmers' share of retail prices is highly contentious. Some farmers have developed other routes to market, including supplying farmers' markets, the restaurant wholesale market or by exporting. Furthermore, the Competition Commission has recently issued a provisional decision to create a code of practice governing relations between grocery retailers and suppliers, to ensure that grocery retailers' are not exploiting their buying power. 16

As part of the SDC's recent review of Government policy towards supermarkets, a stakeholder survey was conducted. In this survey, supermarkets' treatment of suppliers attracted a lot of criticism from non-retailers. The perception is that suppliers are being 'squeezed' to the extent that they are being put out of business. Turthermore, rising feed prices are putting pressure on livestock and dairy farmers, squeezing profit margins. This is illustrated by the recent movement to save the British pork industry - feed prices have doubled in recent months and pig farmers lose an average of £26 for every pig they produce. 18

Across Scotland, there is a need to address such imbalances in the food chain by looking at the role of government, retailers and consumers in promoting equity and fairness in supply chains. A recent Church of Scotland report noted that:

"The food supply chain represents a very real market failure. There is a need to

increase the bargaining power of primary producers if they are to survive...Making primary producers more effective sellers e.g. through increasing the quality of market information, developing alternative outlets e.g. electronic bazaars, facilitating value adding activities e.g. turning milk into cheese and a real opening of public procurement would make the distribution of resources within the chain fairer." 19

Furthermore, there is growing interest in 'local food' with the majority of consumers viewing this as a means of supporting local farmers and businesses. However local production does not necessarily mean the most sustainable and resource efficient production methods have been used. More information about the difficulties of using 'local food' as a proxy for sustainable food is set out below.

Recommendations

- The Scottish Government to develop a code of practice for fair supply chains in Scotland including social justice, community cohesion and environmental sustainability
- The Scottish Government to define what a "fair trade" Scotland would look like
- The Scottish Government to recognise the global impacts of food consumption in Scotland by articulating policy goals that aim to achieve the joint goals of international development and environmental sustainability, reflecting integration of objectives, not tradeoffs.

The need for a strategic plan for GHG reductions across the food chain, in line with government targets

Food accounts for at least one fifth of all the UK's consumption-related greenhouse gas (GHG) emissions. Scotland will have to make substantial annual cuts in GHG emissions over the coming decades to meet the proposed Scottish Climate Change Bill's target of an 80% reduction in emissions by 2050. Cuts in greenhouse gas emissions can be achieved upstream in food production and processing, through the retailers, and downstream with consumers. The urgency of climate change and the need for early action (to reduce emissions now to avoid higher costs later) requires a holistic approach across the food supply chain.

Farming, food and land-based industries contribute 20% of Scotland's greenhouse gas emissions²², a much higher proportion than across the UK as a whole (7%). Land management practices, livestock farming, and the manufacture and use of fertilizers result in significant emissions of methane, nitrous oxide and other greenhouse gases. For example, emerging research shows how changes to feed can reduce methane emissions from animals.²³

Scotland's peat rich soils have the potential to emit large amounts of GHGs but these soils can also be a carbon sink if properly managed. Changes to the use of soils are currently responsible for 15% of Scotland's GHG emissions. For example: if a hectare of grassland on an organic soil is converted to arable, up to eight tonnes of carbon a year are lost to the atmosphere; by contrast, converting arable to grassland locks away about one tonne of carbon a year.²⁴ The SDC will be responding in more detail about this issue as part of its response to the Climate Change Bill consultation.

Emissions from energy used elsewhere in the food chain, including transport, food manufacture, home cooking, agricultural inputs, storage, distribution, and refrigeration are also significant. Transport is the greatest single source of energy use in the food chain with heavy reliance on national distribution of food by road and the import of fresh produce by air.

Greenhouse gas emissions from landfilled waste must also be addressed. Over £800 million of food is wasted by Scottish consumers every year; eliminating this waste would have the same

climate impact as taking a quarter of Scotland's cars of the road.²⁷ However research shows that wasting less food is a goal on which most people are likely to take action.²⁸ Current food retailing practice encourages food waste: large portions,

the promotion of 'by one get one free' and other offers encourage purchases that may not be needed or used. Retailers also have a significant role to play in addressing the environmental impact of plastic bag and packaging waste.

Recommendations

- The Scottish Government to develop a strategic plan for greenhouse gas emissions across the whole food supply system to support the trajectory for at least an 80% cut in emissions by 2050
- The Scottish Government to work with the farming and food supply chain to develop a long-term vision for reducing greenhouse gas emissions from farming; and to implement policies to support farmers and the food supply chain in finding appropriate solutions to agricultural and food waste, including the use of anaerobic digestion
- The Scottish Government to highlight the risks of carbon emissions and opportunities for sequestration, and to conduct research on emissions reduction for its forthcoming discussion of land use

• The Scottish Government to take forward its commitment to zero waste by:

- working with SEPA and WRAP to ensure a consistent approach on waste and resource efficiency across the supply chain
- working with retailers, manufacturers and others to develop initiatives to reduce packaging and food waste
- working with willing local authorities to increase recycling and phase out singleuse plastic carrier bags
- The Scottish Government and retailers to encourage a move from road to rail distribution of food and the development of local supply chains.

Making the links with transport and planning policy

Transport and planning policy should play a central role in Scotland's National Food Policy by helping to address obesity and food-related ill health; promoting more local food distribution networks and ensuring better availability of local food, therefore encouraging a more sustainable and low carbon food distribution system.

Transport is the single largest user of energy in the food chain and the term 'food miles' is now in everyday use. However, areas of Scotland which have retained food specific infrastructure (for example the Isle of Mull Slaughterhouse) minimise food miles, and enable thriving local supply chains. Planning policy, combined with product roadmapping and full life cycle analysis, can help to reduce the carbon impact of food production and distribution.

The majority of people purchase their food at supermarkets, which are often poorly integrated with public transport systems. For example 90% of people always access supermarkets by car.²⁹

Our current infrastructure and planning system is contributing to local pollution and to the huge economic costs of congestion.³⁰ It is important that future planning policies deliver 'in town' development; support neighbourhood shops and smaller, more local supermarkets; and provide good cycle, walking and public transport access to such facilities.³¹

Planning policy is also partly responsible for the creation of so-called 'food deserts'- communities where there is little access to fresh produce. These communities are often the most disadvantaged in our society. The lack of fresh food further exacerbates the health divide between Scotland's poorest and most affluent areas

There are good examples of community projects across Scotland that tackle access at a local level. For example, Forth Valley Food Links created a local food hub³² which works to improve access to healthy food, whilst reducing local food-

related vehicle miles and transport-related emissions. The role of convenience stores is also important in increasing availability of healthy food in neighbourhoods with poor public transport. ³³ The challenge is to improve equity of access for all communities across Scotland.

Recommendations

- The Scottish Government to work to reduce car dependency for shopping, for example:
 - In partnership with Regional Transport
 Partnerships and Local Authorities, pursue
 planning policies that reduce car use for
 access to supermarkets and other food
 providers
 - In partnership with supermarkets, identify ways in which the transport impact of supermarket shopping can be reduced through for example increasing public transport access and actively encouraging/prioritising 'in town' development - the approach set out in Planning Advice Note (PAN) 59
- The Scottish/UK Government and Transport Scotland to create a framework which will

- promote more local food distribution networks, and encourage greater use of rail freight
- The Scottish Government to ensure that the approach set out in the National Food Policy should be closely integrated with the forthcoming Action Plan on Healthy Weight, Physical Activity and Healthy Eating, particularly with regard to supporting active communities and reducing car dependence
- The Scottish Government, Scottish Enterprise/HIE and Local Authorities to provide greater support for projects that work with communities to improve access to healthy local food.

Limitations of using local food as a proxy for sustainable food

'Local food' is seen by many consumers as a means to support the economy in their local area, including farmers and food producers. The Curry Commission³⁴ called for an enforceable definition of 'local' food, yet there has been little attempt to define 'local food' by policy-makers.

Outside Government a range of definitions of 'local' apply. Whilst FARMA guidelines for Farmers' Markets define local as within a geographic boundary, often a 30 to 50 mile radius, one survey showed that 40% of respondents saw 'local' as within a 10 mileradius of their home. 35 In Scotland in particular, there is the need to consider dispersed populations in regions such as the Highlands & Islands where a 30-mile radius has little significance. Tesco uses the terms 'local' and 'regional' interchangeably and considers Scotland to be a region. According to a recent news article, milk branded as local is being sold by Tesco about 150 miles away from where it was produced.36

Six out of ten consumers have said there should be regulations or guidance on what food can be called 'local'.³⁷ The lack of clarity means there is a risk of the term being misused and causing consumer confusion. A common definition would also make it easier to measure the scale of the sector.³⁸

Demand for local food is growing, and some consumers are willing to pay a premium for local food ³⁹ whereas others perceive locally-produced food to be too expensive. ⁴⁰ This raises issues of social equity in terms of access to local food - while some argue that higher prices reflect the 'true' cost of production, this may nonetheless act as a barrier to engaging those in low-income communities. ⁴¹

The sustainability of local produce is often equated with lower 'food miles' or the distance that it has travelled from field to plate. However, the relationship between 'local' and 'seasonal' needs clarification. Whether fruit and vegetables are in season locally can be the major factor in their energy use and contribution to climate change; the environmental footprint of food varies through the seasons as well as by place and method of production.⁴² This is

illustrated by a Defra case study on the energy balance for Spanish and UK tomatoes which found that there may be cases where importing non-indigenous or out-of-season produce is more energy efficient than growing such produce in UK greenhouses, which require energy to light and heat them.⁴³

Other potential barriers to the development of local food markets such as those experienced by small-scale producers include: availability of cost effective local distribution; knowledge and skills development relative to their diverse range of

activities; and complying with diverse regulation and legislation. EU procurement rules preclude public sector procurers from specifying that food must be 'local' in their tender contracts; however there are examples of contracts that stipulate conditions such as freshness, which tends to favour local produce. ⁴⁴ There is clearly the potential for policy makers to support local sourcing and provide advice about what is legal and acceptable, an issue which is discussed further in the section on public procurement below.

Recommendations

- The Scottish Government to develop an enforceable definition of local food
- The Scottish Government to develop a guide to sustainable sourcing using full life-cycle

assessment, building on Defra work on product roadmapping (see Sustainable Public Procurement below).

Sustainable Public Procurement

The Scottish public sector spends £85million on food (£57 million of this through local authorities). The scale of this expenditure gives the Scottish Government and its agencies a significant opportunity to influence the quality and sustainability of Scotland's food and to encourage healthier eating in schools, hospitals and prisons.

For NHS Scotland, food procurement has the potential to be a particularly powerful tool to deliver sustainable development because the large scale of its purchasing means the NHS can send powerful messages back up the food chain to wholesalers and producers. The food it serves has direct and indirect impacts on population health, a key target for NHS policies, and because many NHS staff buy meals on site, the NHS can also encourage a fitter, healthier workforce which will help it achieve its operational targets.

The Schools (Health Promotion and Nutrition) (Scotland) Act 2007 indicates that local authorities, when purchasing food and drink, should have regard to wider sustainable development principles as set out in Scottish Ministerial Guidance. Evidence shows that the majority of local education authorities have adopted sustainable development principles in relation to their food purchasing, even in the absence of guidance from the Government. 47

Sourcing of local food can contribute to a sustainable purchasing policy by limiting unnecessary 'food miles' and carbon-intensive transport of food. However, there is still a certain degree of confusion over what public authorities can specify in contracts without infringing EU procurement rules, since it is not possible to specify 'local' in a tender. By looking at the procurement practices in other European countries, it has been shown that contracts can be designed to allow for local purchasing. For example, public bodies in Italy and France specify certain product qualities such as fresh ingredients, organic products, seasonal produce and locally certified products. 48 Furthermore, EU legislation states that contracting authorities are allowed the possibility of laying down special conditions if they want to take into consideration social and environmental issues. 49

Another perceived barrier can be the increased costs of more sustainable public procurement. Research for the Scottish Government found that in a pilot scheme in East Ayrshire, school dinners produced from local fresh food cost 71.9p per head compared with 59p for the lower quality option. Food price inflation (see the related food security discussion below) may also put pressure on procurement practices, thus raising important questions about the sustainability of free school meals in the long term if this

eventually means procuring cheaper, poorer quality produce.

The challenge for the Government and other public bodies is to recognise fully the wider

economic, environmental and health benefits of healthy, local and sustainable food and provide the necessary funding and support to deliver these.

Recommendations

- The Scottish Government, through the Scottish Procurement Directorate, to work with public sector procurers and retailers to develop a guide to sustainable sourcing that incorporates full life-cycle analysis, building on Defra's work on product roadmapping
- The Scottish Government to adopt a strategic set of procurement priorities to make sustainable consumption visible to the public
- e.g. a clear shift in public sector catering towards an emphasis on less meat-intensive diets maximising the use of fresh, seasonal fruit and vegetables and promoting more sustainable fish species
- The Scottish Government to work with public bodies to minimise food waste, increase composting and where subsidised food is provided for staff, subsidise healthy food.

Meat and dairy production/consumption, and the sustainability of fish

A growing evidence base on the impacts of food and agricultural production is highlighting potential synergies between a diet that is good for health and one that is better for the planet. For example, meat and dairy production are significant contributors to greenhouse gas emissions as well as having other negative environmental impacts.⁵¹ The UN Food and Agriculture Organisation reports that the livestock sector globally generates more greenhouse gas emissions as measured in CO₂ equivalent (18%), than transport.⁵² Diets high in meat and dairy are also linked to increased intakes of saturated fat and some cancers.⁵³ Yet the links between healthy and more sustainable diets are largely unexplored within public policy, illustrating the way in which 'health' policies within government have been developed separately from 'environmental' policies to promote more sustainable production and consumption.

Meat and dairy production/consumption

In the UK, the livestock industry accounts for the greatest share of agriculture's impact on the environment⁵⁴, contributing 8% of UK greenhouse gas emissions with meat production accounting for over two-thirds of that figure.⁵⁵ Global meat demand is expected to rise. While sheep and beef meat have the highest climate impact of all types of meat, with a global

warming potential of 17 and 13 kg CO₂-eq per kg of meat, pigs and poultry have less than half of that.⁵⁶

Research on the ecological footprint of the Scottish average diet shows that most of the impacts come from eating meat and that a vegetarian diet including moderate amounts of milk and eggs can reduce the footprint by 23% compared with a diet that follows current healthy eating recommendations.⁵⁷ The 'best diet' in terms of health and the environment is healthy, vegetarian, local and organic, reducing the Scottish food footprint by approximately 40%.⁵⁸

A higher consumption ratio of white to red meat may result in fewer direct emissions but it also diverts edible grain away from human consumption. A shift towards a low-meat diet may also mean filling the gap with substitute foods such as fish and air-freighted fruit and vegetables which have their own associated environmental costs. Consumer demand for prime cuts of meat also contributes to food waste – it is important that people are equipped with the skills to make the best of cheaper cuts.

Sustainability of fish

Three quarters of the world's fish stocks are fully, over or significantly exploited.⁶² In the UK, there is increasing reliance on imports and farmed fish

due to a declining fishing fleet and fish stocks. 63 Around 90% of the UK fish farming industry is based in Scotland, particularly in the Highlands and Islands. 64 Aquaculture has been found to be the only way to meet increasing demands for seafood. Farmed salmon accounts for nearly 40% of Scottish food exports. 65

The proposed Aquaculture and Fisheries Bill⁶⁶ seeks to address certain issues relating to sustainable fish farming, including escape and recovery of fish, and parasites. However, there is still the need to tackle the problem of sustainable sources of feed for carnivorous fish (e.g. salmon, trout, halibut, cod) as the implications of continuous large-scale exploitation of industrial or feed-grade fish are poorly understood.⁶⁷ Furthermore, there is evidence to show that farmed fish have more oil, but a poorer ratio of omega-3 to omega-6 fatty acids and therefore reduced health benefits.⁶⁸

Whitefish stocks have also been under threat for many years. Although there are figures which suggest that North Sea cod stocks are beginning to recover, the latest report from the International Council for the Exploration of the Seas recommends constraining catches in 2008 to less than 50% of the 2006 catches. 69 The recently established voluntary scheme to preserve North Sea cod stocks will therefore have an important role in meeting the recommendations. 70 The Marine Stewardship Council standard is recognised in the UK and internationally as indicating sustainable and wellmanaged fish. With a rising number of certification applications for mackerel and herring fisheries⁷¹, consumption of these fish and other certified fish species should be encouraged. In Scotland, eco-friendly mussel farming represents an example of supporting tourism and the local economy whilst providing a source of highly nutritious food.⁷²

Recommendations

- The Scottish Government to work with the FSA in its review of advice on sustainable fish consumption towards a recommendation that people should be consuming more oily fish from sustainable fish stocks and less whitefish
- The Scottish Government to continue to fund public-facing initiatives to increase seasonal
- consumption and also to help familiarise people with lesser known meat cuts and well-managed fish species
- The Scottish Government to work with the farming and food supply chain to develop roadmaps for sustainable meat, dairy and fish sectors, building on Defra's product roadmapping work.

Obesity and nutrition

Obesity is a key health concern in Scotland. There are many factors - including food production and consumption - that contribute to obesity and to diet-related ill-health. Obesity is a symptom rather than a cause of unsustainable food policy.

Scotland faces rapidly rising childhood obesity. 20% of children aged three-and-a-half are now reported to be overweight. The same proportion of school-aged children is reported to be obese (considerably higher than in England and Wales). The recent evaluation of the implementation of *Hungry for Success* showed that whilst this guidance had resulted in improvements in the quality of school meals and

greater emphasis on healthy eating in the curriculum, slower progress had been made in secondary schools, due in part to the 'lack of priority and urgency' afforded to meeting the recommendations.⁷⁴

The SDC therefore welcomes the Schools (Health Promotion and Nutrition) (Scotland) Act 2007 which sets out an enabling framework for health promotion in schools, including the establishment of nutritional requirements. Furthermore, the forthcoming Action Plan on Healthy Weight, Physical Activity and Healthy Eating provides further opportunities to address the continuing poor dietary record of a large number of Scotland's population.

According to the Scottish Diet Action Plan (SDAP) Review, the dietary targets set for 2005 have overwhelmingly not been achieved. 75 Of the ten dietary targets set in the SDAP, on only one has the trend been in the right direction (intake of fat as proportion of total energy). On some others (consumption of fruit and vegetables, complex carbohydrates, oily fish, saturated fats, and breakfast cereals) there has been no change, while in others, change has been in the wrong direction (sugars, potatoes and bread). However, the Chief Medical Officer reported last year that young people's eating habits have improved, with increases between 2002 and 2006 in daily consumption of fruit and vegetables and decreases in daily consumption of sweets and sugary soft drinks.⁷⁶

The quantity, quality and type of food we buy from our major retailers and the way in which it is marketed and promoted is also a crucial part of examining the causes of diet-related ill-health. For example, research within supermarkets shows that healthy eating messages, such as 5-a-day, are drowned out by the larger proportion of adverts promoting high-calorie energy-dense foods.⁷⁷

Equality and social justice are also key to improving diet-related health: healthy food must be available, accessible and affordable to all, thus helping to ensure a strong, healthy and just society. A recent study shows that a range of healthy food is not always accessible in Scotland's deprived urban areas where prices may also be higher. The role of community food networks in addressing problems of access to healthy food has been significant and should receive continued support to improve dietary health in our remote rural areas and deprived urban communities.

Recommendations

- In the forthcoming Action Plan on Healthy Weight, Physical Activity and Healthy Eating, the Scottish Government should adopt the SDAP Review's proposed "direction of travel" to progress towards sustainable development. In particular:
 - Closer integration between the policy goals of improving Scotland's diet-related health and those of social justice, sustainable development and agriculture
- Giving high priority to equality and social justice
- The Scottish Government to harness the choice-editing role of supermarkets to influence consumer awareness of the impact of their food choices and improve dietrelated health.

Choice editing to offer more sustainable options to consumers

In *I will if you will,* the Sustainable Consumption Roundtable offered a solution for making sustainability simpler for consumers. Choice editing for sustainability is about shifting the field of choice for mainstream consumers: cutting out unnecessarily damaging products and getting real sustainable choices on the shelves. In the context of high consumer concern, but low levels of action, the idea of integrating the most compelling issues of sustainable development makes sense. ⁸⁰ The result provides customers with a better choice of products and makes it easier to 'do the right thing'.

Defra's recent research on pro-environmental behaviours found that people's understanding of sustainability and climate change is low with only tenuous links to food.⁸¹ People look to both business and government to take a lead on encouraging pro-environmental behaviour - they ask government to offer guidance and direction and regulate if necessary, and business to make sustainable choices clearer whilst improving the fairness of their supply chains.

Given the large market share of supermarkets, it is reasonable to explore what more they can do to 'edit out' unnecessary food miles, packaging

and waste, and to prioritise more seasonal produce.82 The SDC report *Green, healthy and* fair found that some are addressing sustainable supply chains by choice editing. For example, Marks and Spencer plans to only sell fish that is MSC-certified, whilst Sainsbury's aims to convert its top five selling fish species to 'green status' by 2010. Sainsbury's has also converted its entire banana range to Fairtrade, plans to make 100% of its own label tea Fairtrade, and is working with its supply chain to procure sustainable palm oil as soon as it is commercially available. Marks and Spencer and Tesco have introduced 'airfreight' labels for produce and Tesco is also developing a 'carbon label' for products. Retailers are also successfully growing 'healthy', 'green' or 'ethical' markets, for example for local, fairtrade or organic produce.83

However, retailer initiatives to promote dietrelated health have had mixed results: labelling schemes have been implemented in a way that causes consumer confusion (some retailers are using Guideline Daily Allowances (GDAs), others traffic light labels). There continues to be overproduction of fatty, sugary and salty foods, though the FSA has achieved commitments and progress from all major retailers towards its voluntary salt reduction targets, and FSA is developing targets to reduce saturated fat. Price signals and health messages are not congruent, so the healthiest foods are perceived to be most expensive, and the high calorie, high energy, poor nutrient foods are cheap.⁸⁴ Buy one get one free offers are usually on high-fat high-sugar, additive-laden products.

In view of supermarkets' role as major suppliers of food across Scotland, with the power to influence consumer choice and understanding of the impacts of their food choice, it is imperative that government further harnesses this relationship behind its efforts to improve dietrelated health.

Recommendations

- The Scottish Government to harness the choice-editing role of supermarkets, in order to influence consumer awareness on:
 - the impact of their food choices on improving diet-related health
 - the social and environmental impacts of their food choices

Food security

The ability of global food production to meet rising demand is fast becoming an issue of fundamental importance and widespread concern. Constraints on the availability of energy, water and land (and the skills needed to farm it) are key factors and represent significant challenges for the future.⁸⁵

Food security can be described as existing "when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. Household food security is the application of this concept to the family level, with individuals within households as the focus of concern".⁸⁶

However, the term food security also encapsulates many other concepts and meanings including food capacity (the ability to produce); food democracy (full social engagement) and food nationalism (self-sufficiency).⁸⁷

The 'fundamentals' of food security are changing, and all of them will impact on what Scotland imports and exports. These are:

- Rocketing food commodity prices
- Increasing fuel/oil/energy prices
- Climate change
- Water shortages
- Land use
- Labour (availability of rural workforce in the face of rapid urbanisation)
- Demography (increasing world population)/urbanisation
- Health/nutrition transition increased consumption of sugars, meat and dairy.

The UK Government's Chief Scientific Adviser recently pointed out that agriculture industry needs to double its food production, whilst using less water than today, to respond to the effects of climate change (including decreased rainfall and crop failure). Agriculture and the food industry are the economic sectors making greatest use of water (agriculture uses for 742 million m³ of water, and food and drink 155 million m³). Furthermore, there has been a decline in the number of agriculture and food science students at our universities, and therefore Scotland may be lacking the knowledge and skills to adapt to these rapidly changing circumstances.

A recent news article reported that the average British household spends only £1 in eight on food. Only two generations ago, it was nearly £1 in three. 91 However, the era of 'cheap' food is almost certainly coming to an end, as indicated

Recommendations

 The Scottish Government to review the impact of the rapidly changing world food situation on Scotland's food economy. The SDC recommends that this be seen as an opportunity to build the goal of sustainable development into the existing food economy. by the fact that the average price of all foods has increased by 6.6% over the past year. 92

Recent food price inflation is largely attributed to three factors: rising oil prices; supply pressures from emerging economies such as India and China where meat consumption is rising, leading to a multiplier effect in the consumption of grain for animal feed; and the rapid rise in biofuel production. This is combined with the stagnation of food aid for low-income countries during the last two decades where food insecurity is intensifying. Furthermore, an OECD-FAO report predicts high demand for biofuels will impact on cereals, sugar, oilseeds and vegetable oils and is likely to contribute to a 20%-50% rise in food prices in the next decade.

Accelerating food price inflation means Scotland's future food security must be considered, particularly in relation to fair supply chains⁹⁶. Scotland must assess what it produces, how and where, to ensure sustainable food security. Land use and ways in which lowland meat production can be made more sustainable must be considered. As oil prices reach \$100 per barrel, for the beef and sheep sector remoteness from processing/markets is the biggest challenge with transport and production costs impacted by oil price. On this basis, livestock numbers would be expected to decline.⁹⁷

Scotland's agriculture sector will need to respond accordingly, including better infrastructure and attracting people with right mix of skills and knowledge to adapt to the changing conditions. Equally important is the need to address consumer awareness and education by looking at our food culture and reconnecting primary food production with consumers.

Our food culture

The cultural and social value placed on food is changing. Not only has the proportion of household income spent on food decreased over recent decades, but we also consume one third of our meals outwith the home. 98 We also spend considerably less time in food preparation.

The Scottish Diet Action Plan Review examined the role of health in Scottish food culture and noted that the speed with which adult and childhood obesity has emerged is a pointer to the rapidity of change in food culture and the food environment. Where food is bought, the context in which it is eaten and how much is consumed are key factors. However, a change in food culture requires engaging with people rather than imposing changes on them. The Review also found evidence of a diversity of Scottish food cultures, as well as deep-rooted complex inequalities, having profound effects on food consumption patterns. 100

Communal eating is fast becoming a ritual of the past. One recent survey showed that almost a fifth of families in Scotland - 17% - never sit down to a meal together. 101 Furthermore, only one fifth of the population now use a knife, fork and spoon at dinner time, with an increasing number of children so accustomed to eating junk food with their fingers that they do not know how to use a knife and fork. 102 There are several reasons for emphasising the importance of mealtimes for families and other social groups, including strengthening relationships by providing time for communication between members; better nutrition through control of the quantity and quality of food choices; and enabling children to adopt positive attitudes to food and acceptable table manners. 103

Ready meals are often chosen as a quick and easy alternative, due to time pressure or as a result of the increasing number of people living alone. Sales of ready meals are still on the

Recommendations

 The Scottish Government to build on the pioneering work of *Hungry for Success* to build a sustainable food culture by linking public procurement in schools, hospitals and prisons with ecological food production increase, although there are emerging trends for these meals to have lower salt and fat content as many people become more health conscious.¹⁰⁴

There is a common myth that pre-prepared meals are quick and cooking from raw ingredients is slow. Many celebrity chefs are helping to challenge this with quick cook recipes; however people need the skills and confidence to be able to prepare and cook food as well as to make informed purchases, for example buying different cuts of meat. The role of campaigns such as Love Food Hate Waste cannot be understated in educating consumers about the need to reduce food waste by planning meals, purchasing less, using leftovers and composting. In addition, the Slow Food movement, both in the UK and internationally, has an important part to play in preserving our diverse heritage of regional food and drink. It also seeks to ensure that food tastes good, is produced sustainably with no negative environmental impacts, and that producers receive their fair share for their labour and skills. 105 There is equally a clear acknowledgment that Scotland's tourist attractions should be doing more to promote Scottish food and drink on their menus. 106

At a time when many people are beginning to ask more questions about the food they eat, the cultural aspects of food cannot be ignored. Educational initiatives such as *Hungry for Success* have helped to create a shift towards a more pro-health food culture in schools, and this work should be replicated more widely. However for a new food culture to take root, everyone must be full engaged and be prepared to change.

The National Food Policy must strive to set an enabling framework for a positive and sustainable food culture, integrating the social, environmental and economic dimensions of food in Scotland.

 The Scottish Government to explore opportunities with the hotel, catering and tourism industries' and secure their engagement with a sustainable National Food Policy.

Conclusion

This submission illustrates how a National Food Policy presents many potential opportunities for creating a sustainable Scotland. The ways in which food production and consumption are intrinsically connected with our environment, economy and society means that the three pillars of sustainable development must be addressed simultaneously if progress is to be made towards the Scottish Government's five strategic objectives.

Moving towards sustainable food consumption requires government, businesses and consumers to share responsibility for leading change.

The Scottish Government however has the chance to take the lead on matters which are crucial to sustainable food for Scotland, including climate change, food security and public sector procurement. The SDC looks forward to working with the Scottish Government to take the forward the recommendations in this submission.

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For further information on the work of the Sustainable Development Commission Scotland, go to: http://www.sd-commission.org.uk/scotland

Endnotes

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