

cutting our carbs food and the environment



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Green Alliance

Green Alliance is an independent charity. Our mission is to promote sustainable development by ensuring that environmental solutions are a priority in British politics. We work with representatives from the three main political parties, government, business and the NGO sector to encourage new ideas, facilitate dialogue and develop constructive solutions to environmental challenges.

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1 Introduction – why is food important?

Food is a hot issue at the moment: barely a day goes by without a news story on some aspect of our diet, with comments on health, waste, cost, nutrition and environmental impact. Even Gordon Brown used a recent meeting of the G8 to outline some of his thoughts on the issue, coinciding with the publication of the UK Cabinet Office report *Food matters, towards a strategy for the 21st Century*.¹ The report was the culmination of over 12 months of work and highlighted the need for the UK to develop a coherent food strategy encompassing nutrition, health and sustainability. This strategy is long overdue and is a necessary step forward to start addressing the impacts of the food we eat in a holistic and balanced way.

Green Alliance has been doing our own thinking too. In 2006 we worked with a wide range of civil society groups to identify the individual actions that could have the greatest environmental benefit. Reducing the amount of animal protein in our diets was identified as a key behaviour.² This fed into a wider piece of work that the Department for Environment, Food and Rural Affairs (Defra) was undertaking on developing *A framework for pro-environmental behaviours*.³

Since then Green Alliance's work on food policy has focused on the challenges associated with encouraging dietary behaviour change and, in particular, a diet lower in meat and dairy products. We have talked to a range of stakeholders in the meat, dairy and wider farming sectors, NGOs, academics and the government to see how, if at all, organisations were addressing this issue. This briefing paper outlines our findings from these discussions and highlights what we see as the key actions going forward. For a full list of the stakeholders involved please see annex a.

Why focus on meat and dairy products?

The UK's consumption of meat and dairy products is estimated to be responsible for eight per cent of our consumption related greenhouse gas emissions compared to the six per cent created by UK air travel.⁴ The majority of these emissions (80 per cent of their global warming potential) derive from methane and nitrous oxide emissions.⁵ These are by-products of rearing animals and not even counted in current UK emissions reduction targets.

The significant contribution that animal protein consumption makes to our overall environmental impact is clear and unavoidable.

This area will be integral to discussions about how to lower the impact of our diets. More research is needed and there are a great deal of trade offs to work through but, as the Cabinet Office report notes, analysis so far suggests that a healthier and a lower impact diet will be one that includes fewer meat and dairy products than the average diets we see today.

Working through these issues will be contentious. Not least because of the perceived place of meat and dairy products in a 'normal diet', the cultural and emotional associations people have with food, and the role of animals in creating and maintaining our view of what a traditional British landscape looks like.

But given the impacts of animal protein consumption and the complete lack of connection between this information and the dietary information that people receive, it

is crucial that we openly discuss these impacts and how to reduce them. The government is understandably reluctant to be seen to be telling people what they can and cannot eat but, as the Cabinet Office report acknowledges, there is increasing consumer awareness of these impacts and “a higher profile for this issue is inevitable.”⁶

Meat and dairy products as part of a lower impact diet

Defra’s 2006 report on behaviour change, *A framework for pro-environmental behaviours*, chose to avoid mention of animal protein and advocated instead that we “adopt a lower impact diet.”⁷

This deceptively clear recommendation highlights the central challenge that we face when considering food and its environmental impacts – namely that we do not know what a low impact diet looks like. There are plenty of suggestions, such as eating more seasonal food, eating more local food, eating less meat and dairy produce, avoiding air freighted produce, eating organic food, eating ethically traded products...the list goes on.

For the consumer, trying to bring these recommendations together and weigh them up against each other into a coherent understanding of what a low impact diet looks like is mind-boggling. The different areas to consider expose the contradictions and competing objectives, claims and evidence of the advice we receive about food.

Our discussions with stakeholders met the same obstacle. It rapidly became clear that there was no shared understanding of what a lower impact diet or a sustainable food system for the UK looks like.

This means that there is no framework within which to make decisions about the best way of reducing the impacts of our diet and to work through the complex trade offs that arise between reducing emissions, animal welfare, supporting different farming methods, food security and global social justice.

Food policy is dissipated across government, with the Department for Health responsible for health issues, the Department for International Development responsible for trade issues and different units in Defra responsible for farming and environmental policy, plus a number of different agencies such as the School Food Trust and the Food Standards Agency (FSA) responsible for nutrition. Without a common framework it is impossible to achieve cross-departmental interlinked objectives, such as a healthy diet that has lower environmental impacts.

One of the key recommendations from our research is the need for the government to develop such a strategic framework. It was clear from all stakeholders that this leadership from government is badly needed. Retailers are already doing a great deal of work on measuring the carbon footprints of their supply chains and many have identified significant savings that they could make. But they are reluctant to act, as they would like a level playing field and are unsure where they may be required to direct their efforts in the future. NGOs also desired government leadership to ensure buy in to the vision for the food system that is ultimately developed.

Our findings added weight to the many similar calls for the government to take a strategic, high level look at food policy from the Sustainable Development Commission in their *Green, healthy and fair* report, from IPPR North in their *Best before: how the UK should*

respond to food policy challenges report and from the wide range of NGOs and public health professionals working in this area.

The recent Cabinet Office report, and the government's positive response to it, is significant progress. The report sets out a clearly articulated plan of action for the government in regard to food policy and recognises the need to join up the various departments and agencies responsible for food. Most importantly, it recommends that a new Food Strategy Taskforce should be responsible for holding an integrated discussion to develop a strategic framework for food policy. The government has accepted all of its recommendations.

The following points from the report are of particular relevance:

- Acknowledgement of the environmental impacts of animal protein consumption and production and recognition that they need to be addressed
- The recommendation that securing a more environmentally sustainable food system should be a strategic objective for the government
- Calls for information about the health and environmental impacts of food to be combined
- Recognition that a more strategic approach to measuring and reducing emissions from farms is needed, as the sector's emissions have largely escaped scrutiny to date
- The recommendation that the public sector should lead by example in providing healthy and sustainable food

Developing an approach to food that covers these issues will involve some complex and contentious discussions and examining the level of animal protein in our diets will be an inevitable feature of them.

Drawing on our discussions with stakeholders we look below at some of the opportunities for addressing the animal protein issue offered by the proposals set out in the Cabinet Office report. We divide these issues into those that are overarching, those that relate to the supply chain and production of food, and those that relate to changing consumer demand.

2 Overarching opportunities

Defining an environmentally sustainable food system

Securing a more sustainable food system is proposed as a strategic policy objective. But to achieve it requires an understanding of what such a system looks like. This understanding will be key to much of the work that will follow in reforming the food sector and influencing choices about the food we eat.

The Cabinet Office report correctly identifies the massive complexities behind seemingly simple generalisations such as local food being 'good' and air freighted food being 'bad' but does not explore how they should be addressed. It sets out a consultative process to develop an overall approach to food policy, but an understanding of what a sustainable food system looks like will not automatically result from it.

The complexities behind the concept of sustainable food should be worked through with stakeholders. Without such a process many of the other actions proposed will not

be possible. If, for example, the FSA is to provide information on both the health and sustainability impacts of food there will need to be a common understanding of what would be viewed as a sustainable option.

Such a process will be a key forum in which to discuss the environmental impacts of animal protein consumption and production and how they should balance with other nutritional, health issues, rural economy and biodiversity interests. As an integral part of this process the government should commission the development of the delayed meat roadmap.

The recently published milk roadmap, led by Defra, has been a valuable tool for exploring the impacts of milk production and consumption at all stages in the chain. It has engaged stakeholders in the challenging debates raised along the way and has set targets of cutting milk-related on-farm emissions by 20-30 per cent by 2020.⁸ A similar roadmap that looks at the production and consumption of meat will be a useful way to gain a thorough understanding of its impacts, which can then be used to inform discussion about how best to balance these with the dietary benefits that meat provides. We do recognise that 'meat' is a very broad category of products, so more than one assessment may need to be conducted on different meat products.

The Food Strategy Taskforce should aim to develop a road map towards a framework for sustainable food. This would provide a steer for stakeholders in the decisions they will be making on food over the coming months and will ultimately allow actors to work towards shared objectives.

Recommendations:

- The government should commit to developing a shared understanding of what a sustainable food system looks like by 2010 as part of its overall strategic food policy
- This must be a multi-stakeholder process and should involve the development of a road map towards sustainable food so that all stakeholders can see where it is going
- As part of this, the government should commit to the development of a meat roadmap

Identifying low impact, healthy choices

The Cabinet Office report gives the FSA a key role in bringing together food-related health and environmental considerations. It will expand its provision of nutritional information to include information about the sustainability of food production and consumption. Their work programme on this is to be set out by the end of October 2008.

This is something that a number of the stakeholders we spoke to will welcome. The current provision of dietary advice without information on environmental impacts is increasingly seen as unacceptable. Without such combined information consumers are unable to make decisions about their diet in a way that seeks to minimise its impact as well as ensuring that it is nutritionally adequate. This problem is exacerbated by the fact that so many messages about food sustainability are confusing and often contradictory.

The FSA was repeatedly identified in our interviews as the appropriate body to address this. Assessing the sustainability implications of their advice on fish consumption has been strongly welcomed by the NGOs working in this area and many stakeholders would like to see this exercise replicated across all their dietary advice. For example, stakeholders would like to see the vastly different environmental impacts of protein options, such as pulses and red meat, made clearer in the FSA's 'eat well' plate.

Assessing the varying impacts of different options in food groups would seem to be a crucial first step if the FSA is to become a 'one-stop shop' for advice on health, food safety and the environment. We hope to see this assessment committed to and prioritised in the work plan that the FSA develops.

As the Cabinet Office report suggests, rethinking the overall composition of our diets is likely to be a better way of reducing their impacts than trying to make decisions between the sustainability virtues of different farming methods or provenances, for example. The FSA will need to be adequately supported in undertaking this piece of work, as the sooner it is completed the sooner other actors can use it in their own messaging.

Recommendations:

- Prioritise the FSA's sustainability assessment of its dietary advice and the development of advice that takes both environmental and nutritional impacts into consideration

3 Improving the environmental performance of the supply chain and agricultural sector

Bringing farms into emission reductions schemes

Taking a strategic approach to emissions from farming came up repeatedly in our interviews as a way to address the impacts of animal protein production and consumption. Livestock is responsible for 4.5 per cent of the UK's greenhouse gas emissions⁹ so a focus on farming's emissions will inevitably require a hard look at the impacts of livestock.

So far the agricultural sector has escaped serious scrutiny of its emissions (around ten per cent of our emissions are from agriculture and about half of these are from livestock¹⁰ for meat and dairy production). As previously mentioned, the majority of these emissions are in the form of methane and nitrous oxide, which are not even included in the UK's domestic targets for emissions reduction and do not have an equivalent carbon price assigned to them. This has been partly to do with the complexity of measuring 'on farm' emissions, but their quantity means they cannot be continuously ignored.

The Cabinet Office report notes that climate change will be a key aspect of the government's engagement with the farming sector and the food chain going forward. The Climate Change Bill and carbon budgets provide the framework within which all sectors will work to reduce their emissions and farming will also have to make its contribution. The Climate Change Committee will be making recommendations as to whether the UK should set targets for all greenhouse gases and we would like to see

methane and nitrous oxide included to ensure that a strategic approach can be taken to managing them.

Our stakeholder work sought views on the strategic options for reducing greenhouse gas emissions from farming. There was some scepticism about whether an effective way of measuring and rewarding emissions reductions could be developed and applied. There was particular concern among farming stakeholders that a generic value would be assigned to emissions from a dairy cow, for example. This would provide no incentive to innovate and reduce emissions through changes to feed and farming methods because the reductions would not be recognised. There was also concern that any system may place too much of a burden on farmers.

Defra is already exploring ways to bring agriculture into a framework for managing emissions and internalising its costs and we welcome this. New Zealand offers a lot of learning for the UK as they move ahead with a cap and trade scheme for greenhouse gas emissions from all sectors including agriculture, although their need to address this is more pressing, as agriculture is responsible for 49 per cent of their emissions.

Many farms are working to reduce their impacts by looking at technical solutions such as feed, rearing methods and anaerobic digestion. The different meat executives have also been working with the public sector to promote more efficient use of whole animals, for example by developing recipes for schools that use less familiar cuts of an animal.

We welcome efforts to strategically manage emissions from the sector, as it is a neglected area. However, methane emissions are an inevitable by-product of meat and dairy production and we need to be realistic about what technical fixes can achieve. Efforts to reduce production emissions will have to be balanced by a focus on reducing demand for the final product.

Recommendations:

- Include methane and nitrous oxide in greenhouse gas emissions targets so that the full global warming potential of the farming sector is acknowledged
- Develop a methodology to strategically reduce the emissions from this sector so that efficiency and technological solutions are maximised

Using retailers

Economies of scale and strong relationships with farmers mean that retailers are well placed to reduce emissions from their operations and supply chains and to implement the recommendations of any sustainable food framework. All of the retailers we spoke to expressed frustration at the lack of agreed priorities and a framework within which they could take action to improve the sustainability of their products. Following the government's commitment to develop such a strategic framework, retailers should respond with the level of commitment and action that their comments implied would be forthcoming.

Many of them already work closely with farmers to measure and reduce emissions from their operations and the government's work programme will provide these efforts with a shared focus. There is also potential for retailers to hold any strategic obligation

for reducing the agricultural sector's emissions, as they could find the most efficient way of doing it across the whole food system.

Recommendations:

- Retailers should commit to using the framework for a sustainable food system, once developed, to improve the sustainability of their products

4 Changing consumer behaviour

Ultimately food production is a business and, as with all businesses, the food industry will respond to consumer demand. If the consumer starts demanding ethically traded goods then the production and availability of them will increase; if the consumer desires healthier products the retailers will increase the variety and prominence of such products on display. Conversely, if consumers stop buying a product it will get less and less shelf space.

So consumers, through their shopping habits, have a key role. Farmers and the meat and dairy industry can do their best to increase the efficiency of their production; retailers can reduce emissions in their supply chain and the government can help drive it all through a sustainable food framework. But ultimately it will be consumer purchase patterns that will drive the industry and the impact of our food system.

So we come back to the question of how to influence behaviour change. This question cannot even be addressed without the framework and joined-up approach that we have advocated and that the Cabinet Office proposes. Once these are in place all stakeholders can work together to establish the best methods by which to influence the consumer to adopt the lower impact diet that will have been defined.

Messages given to the consumer through labelling, education and product choice will be crucial in driving this change. The government and retailers must be clever in learning from their own experience in health and other social marketing.

Getting the FSA's message out

The development of advice that considers the health and environmental impacts of food will be significant progress, but it will be wasted unless it reaches consumers. Consumers get their dietary advice from a wide range of sources and few of them go directly to the FSA for it. Once the FSA has developed its advice it will be important that all actors use it to inform the food messages that they promote in order to raise awareness among consumers about the impacts of their diet choices.

Thought will also need to be given to how messages on sustainability and health impacts are communicated on products. The lack of clarity of much of the information currently presented on food labels was cited by many of the stakeholders we spoke to as a concern.

We welcome the BSI British Standards methodology behind the Carbon Trust's carbon reduction label, recently redesigned and launched on an increased number of products. Product assessments enable companies to lower the impacts of products before they even reach the shelf through changes to their manufacture and supply chain. But there

is a lot of scepticism about whether a carbon label on products will actually change consumer decision-making.

We explored this in reference to animal products in our work with stakeholders. Few retailers envisaged a widespread application of carbon labels to their products any time soon, although they are using the methodology to better understand their impacts. Labelling is also likely to be carried out in product groups. A customer could choose the lowest impact chicken but the differences between meat and an alternative protein would not be apparent to the consumer in a readily comparative way. Furthermore, unless the labels are adopted by all retailers and in the same format many NGOs felt that they would just create added confusion.

Retailers are wary of choice editing products but there is a desire from consumers for some of the hard environmental decisions to be made for them. As it becomes clearer what a low impact diet looks like and what the lower impact options are we would like to see retailers assisting consumers in their decision-making.

Once we have an understanding of what a low impact diet looks like retailers will be key to communicating its options to consumers, through the products they choose to promote and the messages they provide about sustainability. In the same way that retailers promote healthy eating through offers on fruit and vegetables, their healthier ranges and through recipes and tips in their magazines, we would like to see them promoting the low impact diet message.

Recommendations:

- Retailers and the public sector should commit to raising awareness of healthy, low impact options through the food information they provide
- Retailers should use their promotions, information sources and labelling to promote items that contribute to a low impact diet

Leading by example through the public sector

The public sector was identified by nearly all stakeholders involved in our work as a key avenue for promoting a lower impact diet and leading by example. The statistics involved show why: the NHS serves 300 million meals a year and the public sector in England spends £2 billion a year on food.¹¹ We therefore strongly welcome the prominence given to the public sector's role in promoting a healthier and more sustainable food system in the Cabinet Office report.

It sets out the introduction of a new 'Healthier Food Mark' that will promote healthier, low impact food in the public sector. Its criteria will cover nutritionally balanced menus with an emphasis on choice, ingredients that are low in saturated fat, salt etc. and aspects of food presentation, such as portion size. The criteria will also aim to improve the sustainability of food and these will be updated as it becomes clearer what a low impact diet looks like. This is likely to lead to the provision of fewer animal protein based meals, or at least an increase in the provision of vegetarian options. The approach will be piloted in central government departments, the prison service and the NHS. Options will be developed for rolling out the scheme across all public sector bodies and consideration given to whether compliance should become compulsory by 2012.

We greatly welcome this progress and would very much like to see compliance with the scheme become compulsory by 2012.

Schools stood out as a key area of influence in our research. Partly for their scale, as schools in Britain serve 3.25 million meals a day,¹² but also for embedding messages about diet early. Working through schools on school meals and in the curriculum means that children grow up with messages about healthy and sustainable eating which they can take home to their families and with them into their adult lives.

Cooking and food skills lessons in schools were widely welcomed as a conduit for healthy, low impact eating messages. We would like to see the criteria behind the Healthy Eating Mark reflected in the design of these lessons and in the design of school meals, which are already subject to rigorous nutritional guidance.

Recommendations:

- Make public sector compliance with the Healthier Food Mark compulsory across all bodies by 2012 in order to drive healthy, low impact food in the public sector and to lead by example
- Include sustainability criteria in the development of school menus and the development of cooking and food skills lessons

5 Conclusions and recommendations

Our work, as outlined in this paper, has focussed heavily on the environmental impacts of the consumption of animal protein. Drawing on this analysis and that of the Cabinet Office and other reports we draw the following key conclusions and make a number of recommendations.

Key conclusions:

- A healthier and a lower impact diet will be one that includes fewer meat and dairy products than the average diets we see today
- Developing a shared understanding of what a healthy, low impact diet and a sustainable food system looks like is critical to making any progress on reducing the impacts of food on the environment

Recommendations:

- The government should commit to developing a shared understanding of what a sustainable food system looks like by 2010 as part of its overall strategic food policy
- This must be a multi-stakeholder process and should involve the development of a road map towards sustainable food so that all stakeholders can see where it is going
- As part of this the government should commit to the development of a meat roadmap
- Prioritise the FSA's sustainability assessment of its dietary advice and the development of advice that takes both environmental and nutritional impacts into consideration
- Include methane and nitrous oxide in greenhouse gas emissions targets so that the full global warming potential of the farming sector is acknowledged

- Develop a methodology to strategically reduce the emissions from this sector so that efficiency and technological solutions are maximised
- Retailers should commit to using the framework for a sustainable food system, once developed, to improve the sustainability of their products
- Retailers and the public sector should commit to raising awareness of healthy, low impact options through the food information they provide
- Retailers should use their promotions, information sources and labelling to promote items that contribute to a low impact diet
- Make public sector compliance with the Healthier Food Mark compulsory across all bodies by 2012 in order to drive healthy, low impact food in the public sector and to lead by example
- Include sustainability criteria in the development of school menus and the development of cooking and food skills lessons

The above list of recommendations would have been a lot shorter had this paper been written a few weeks earlier. The overwhelming call from all the stakeholders we spoke to was for the government to acknowledge the impacts of our food system and to show clear leadership in addressing them. That single recommendation would have been the key one we made. Various useful initiatives were already underway in places like Defra and the FSA but there was little confidence in their ability to deliver change at the scale needed as long as a cross-departmental approach to food policy was lacking. Making a long list of detailed policy recommendations seemed futile without a framework in which to consider and implement them.

It was therefore with relief that we read the Cabinet Office report on food with its acknowledgement and intention to act on many of the concerns that stakeholders expressed to us. As a result we have been able to use this paper to reflect some of the more detailed recommendations and approaches that came out of our work.

If the recommendations of the Cabinet Office report are implemented then we will be provided with a strategic framework in which to start having the complex discussions about the impacts of what we eat. Through this piece of work we started to have these discussions with a variety of stakeholders and it is clear that there is still a long way to go. But we greatly welcome the progress offered by the Cabinet Office proposals and look forward to the developing understanding of what a healthy, low impact diet looks like and the contributions of all stakeholders to achieving it.

Endnotes

1. The Strategy Unit, July 2008, *Food Matters, towards a strategy for the 21st century*, The Cabinet Office
2. Green Alliance, 2006, *Achieving a step change in environmental behaviours: a report from three Green Alliance workshops held with civil society organisations in October and November 2006*
3. Defra, January 2008, *A framework for pro-environmental behaviours*
4. Tara Garnett, December 2007, *Meat and livestock 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. A working paper produced as part of the work of the Food Climate Research Network University of Surrey*
5. The Strategy Unit, July 2008, *Food Matters, towards a strategy for the 21st century*, The Cabinet Office
6. *Ibid.*
7. Defra, January 2008, *A framework for pro-environmental behaviours*
8. The Strategy Unit, July 2008, *Food Matters, towards a strategy for the 21st century*, The Cabinet Office
9. *Ibid.*
10. *Ibid.*
11. *Ibid.*
12. *Ibid.*

Annex A

Organisations interviewed as part of Green Alliance's work:

Government and Agencies

Cabinet Office

Defra – Food chain programme, Livestock and livestock products (meat), Livestock and livestock products (dairy), Climate chain industry team, Farming for the future programme

Food Standards Agency

School Food Trust

Retailers

Asda

Tesco

Waitrose

Industry bodies

British Poultry Council

Dairy UK

Eblex

LEAF

Meat and Livestock Commission (as was)

Milk Development Council

National Farmers' Union

Sea Fish Industry Authority

NGOs

Compassion in World Farming

Food Ethics Council

Friends of the Earth

Soil Association

Sustain

The Vegan Society

The Vegetarian Society

Academics

City University

The Food Climate Research Network

The Institute of Grassland and Environmental Research

We also attended the Sustainable Development Commissions useful seminar on their report, *Green, healthy and fair: a review of the government's role in supporting sustainable supermarket food*.