MAKING SUSTAINABLE FOOD CHOICES

INFLUENCING CONSUMER BEHAVIOUR FOR FOOD SUSTAINABILITY IN OXFORD

REPORT COMPILED BY RUTH NG
PUBLISHED 10 MARCH 2015

OxPolicy
The Oxford Student Think Tank
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THIS REPORT WAS COORDINATED AND COMPILED BY RUTH NG
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COVER PHOTO CREDIT: OXFORD MAIL
Caption: Sue Bennett, of Sandy Lane Farm, Tiddington, prepares veg for sale at the East Oxford Farmers Market

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EXECUTIVE SUMMARY

This report aims to provide some suggestions as to how we can start to make the way we eat in Oxford more sustainable. The sustainability of our current food production is a large and complex issue, but in this report we have decided to narrow our focus to three key areas for change. These areas have been selected for their positive impact on sustainability and the ease with which consumers will be able to understand them.

- **Meat consumption**: a shift to eating less red and white meat is one of the most effective ways to reduce the impact of our diets on land, water, and energy usage and greenhouse gas emissions.

- **Seasonality**: the popular concept of food miles is often unhelpful in determining the real environmental impact of food; we argue that purchasing food that is in season is usually a better guide and ensures a lower carbon footprint.

- **Local food**: eating more locally produced food makes our food supply chain more diversified and more secure, and localises the issues of sustainable production practices, making it easier for consumers to monitor how food is produced.

We offer a range of strategies to change consumer behaviour, two of which are explored in greater depth (see the “Labelling” and “Education” sections). In addition to this, many of our suggestions are contained within the three target area sections. We have endeavoured to put forward recommendations that are practical and with low barriers to adoption in Oxford. Here we highlight a selection of our ideas that we think ought to be considered by local authorities, charities, community groups, and other concerned stakeholders, all of which can be implemented relatively quickly:

- **A city-wide campaign to promote meatless options** (as implemented in cities including San Francisco, Sao Paulo and Cape Town). This could include:
  - Employing various publicity methods like events, a signature list for citizens to express their commitment, a website, posters, etc.
  - Making vegetarian meals the default option on certain days in public catering in schools and other institutions.
  - Recruiting restaurants and other caterers to participate, provide support, and promoting those that offer good meatless options through city publications (e.g. street maps).

- **Engagement with retailers to encourage consumer purchases of sustainable foods.**
  - **Raising visibility of seasonal and local foods in retailers** through better signposting or a separate section.
  - Highlighting foods that are in season or explain the meaning of the various sustainability labels on food packaging through the use of visual aids.

- **Enhancing consumer awareness of local food through a “Made in Oxfordshire” labelling scheme.**
  - This should include information about when the food is in season on the label.
  - The scheme seeks to capitalise on the environmental impact, quality and freshness of the food in marketing to appeal to consumers.

- **Promoting label literacy** through a public awareness and education campaign to empower consumers to make their own choices.
• Giving consumers the information necessary to make it easy to eat sustainably.
  • Bring together practical tips on how to eat sustainably in educational materials for consumers (either print or online).
  • Educate about when foods are in season alongside existing healthy eating initiatives in schools.
INTRODUCTION

RESEARCH FOCUS

Food sustainability in any given food system necessarily encompasses a broad range of factors: responsible farming practices, local and seasonal sourcing, supply chain policies, consumer decisions, waste and packaging and so on. There are therefore a variety of ways of approaching the problem: ideally, we would like to see changes in the practices of a range of stakeholders, including not only consumers, but also retailers, caterers, and farmers. For the purposes of this paper, however, the focus will be on the impact of consumer behaviour and how it can be influenced to create more sustainable patterns of food consumption. This is especially relevant, as researchers and policy makers have increasingly acknowledged the key role that individuals and their dietary consumption patterns play in achieving sustainability.

Supply is, of course, responsive to demand, and we believe that a shift towards a more sustainable diet will require an expansion in the demand for sustainable foodstuffs as well as changes along the supply chain. Retailers and others are more likely to be willing to change their own practices if they can see that there is a growing market for sustainable products. For instance, in a recent government report, Tesco indicated that they would alter the types of food they stock if demand were to change, saying “customers have always influenced our procurement and supply chain practices” (Environment, Food and Rural Affairs Committee, 2015). In a 2013 survey conducted by LEAF (Linking Environment And Farming), 48% out of nearly a thousand representatives from across the food industry agreed that their customers are demanding sustainably produced products, and 47% agreed that their company should take sustainability more seriously, demonstrating that customer demand is a driver for addressing sustainability.

DEFINITION & SCOPE

The 1987 UN Brundtland Report established a wide-ranging and widely cited conception of sustainability: that sustainable development should meet “the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, 1987). Applying this to the sustainability of the food system, non-governmental organisations such as Sustain have expanded this definition to include supporting local economies and livelihoods, supporting ecological diversity, avoiding damage to natural resources or contributing to climate change, and improving social benefits, such as good quality food, safe and healthy products, and educational opportunities (“Sustainable Food”).

The focus of this report brings into play the idea of sustainable diets, a term first coined by Gussow and Clancy (1986) to refer to diets which are healthy for both the environment and humans. At the 2010 International Scientific Symposium, participants agreed that sustainable diets were “those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimising natural and human resources” (Food and Agriculture Organisation & Bioversity International, 2012). Reflecting this multiplicity of outcomes, food labelling schemes such as the Rainforest Alliance and Fair Trade attempt to take into account both community needs and environmental and natural resource impacts. Thus, the social and environmental aspects are certainly interlinked when speaking of sustainable diets, something that our recommendations seek to capitalise on.

These definitions also demonstrate that sustainability is a multi-faceted concept, and no single metric or label can fully encapsulate all of the environmental and social impacts of food.
production. The Soil Association, for instance, focuses on the level of pesticides and other harmful substances to soil, land and ecosystems, while the Red Tractor label measures animal welfare. The proliferation of different measures of sustainability and different labelling schemes that correspond to these is in itself an obstacle to making sustainable food choices. Therefore, in this report we have chosen to focus on a limited range of target areas where the impact on sustainability is particularly strong. Some of these are areas where consumers should find the link to sustainability fairly intuitive (local food, seasonality), while others, though extremely important, may require more education before consumers recognise the unsustainability of current practices (meat consumption, various food production methods).

**CURRENT SITUATION**

The first step towards shifting consumption patterns in the direction of greater sustainability is to clarify where we stand under the *status quo*. We have singled out a number of key facts that have a significant impact on the appropriate strategy to adopt.

One obvious factor that should not be overlooked is the dominance of certain types of distribution channels for food. National data on sources of food indicate that supermarkets have the greatest share of the UK food market by value (38%), followed by convenience stores and fast food (12% each), then hotels and restaurants (9% each) (Low Carbon Oxford, 2013). These businesses often perform poorly in terms of the sustainability of their food offering, and more than one type of response is possible: to work with them to make their food more sustainable, or to promote the use of other distribution channels. There is room for growth for alternative channels, such as farmers’ markets (less than 1% of market share) and online shopping (2%). Thus, in practice, it is likely that it will be most effective to use all available levers to shift towards a more sustainable supply of food.

We also need to consider existing food consumption patterns. According to a recent report commissioned by Low Carbon Oxford, Oxford’s food “footprint” is at present slightly better than the UK average. This can be accounted for by the income distribution of Oxford’s population, which includes a relatively high proportion in the top income deciles, where the consumption of fruit and vegetables as a proportion of total expenditure tends to be higher than the UK average, while the consumption of meat, fats and grains/cereals tends to be lower.

Two other facts about Oxford will also have an impact on strategies for food sustainability. Despite having a base population of around 155,000, Oxford’s population turnover is also very high, in large part due to the presence of a significant student population. This could pose challenges for long-term consumer education initiatives. However, there are unique opportunities presented by the significant number of highly motivated community-led organisations in Oxford, such as Good Food Oxford and a number of Community Action Groups (CAGS).

**STRATEGIES**

We believe that the obstacles to behavioural change come under two main categories: firstly, the gap between the individual’s knowledge and the reality of the issue; secondly, the gap between attitude and behaviour, or the value-action gap. Research has confirmed the points that while environmental concern and basic environmental action, such as recycling, are becoming widespread throughout the population, few people take environmental actions that involve changes to their lifestyle (Blake 1999). The strategies in this report aim to influence consumers by bridging these gaps. We aim to fill the knowledge gap by ensuring that more consumers are aware of the environmental and social impacts of their food choices, allowing them to understand how to eat more sustainably. At the same time, it is equally important to fill the action gap by making it easier for consumers to make environmentally friendly choices.
in their food consumption. In both cases, there is a need to consider which communication strategies would be most effective: it is possible that a diversity of approaches will be required for such messages to be communicated effectively, to reach a variety of types of consumers.

Fortunately, several types of strategies are available for use in shifting patterns of consumer behaviour. Below, we offer a rough classification of policy options, which go from “soft” options, such as the provision of information, on the left, to “hard” options, such as regulatory limits, on the right. We also include examples for each category (but note that many of these policy options are not recommended in this report). The sections below explore three major areas where changes in consumer behaviour would have a strong impact on sustainability. These are: reducing meat consumption, buying seasonally, and buying more local food. In each section we explore some of the measures that could be taken to achieve these changes. We then spend two further sections developing the various uses of two important and types of strategy to change consumer choices: labelling and education. Across these five sections, we offer a wide range of suggested actions to improve the sustainability of food consumption in Oxford. Many of these are only lightly sketched, but we hope that this report will prove useful in offering some pointers as to how to begin to tackle the problem. We will be satisfied if we are successful in persuading our readers that there is much that can and should be done at a local level to make our diets more sustainable.

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Note: Many of these policy options are for illustration purposes and are not recommended in this report.

Figure 1. Overview: Demand Management Policy Measures and Examples (adapted from Cordts, Nitzko & Spiller, 2014).
1. MEAT CONSUMPTION

1.1 INTRODUCTION

The raising of livestock for meat production has well-documented impacts on land, water and energy usage, as well as greenhouse gas emissions (FAO, 2006). Reducing meat consumption was recently identified as a “hotspot” area for action to increase the sustainability of food consumption in Oxford: the only area where changes would have a greater impact is the reduction of food waste (Low Carbon Oxford, 2013).

While the task of changing dietary habits that are deeply rooted in British society may seem daunting, there is a range of benefits to reducing meat consumption, which can be drawn on when engaging the public. It is possible to present a positive message about the effects of reducing meat consumption not only in terms of sustainability but also healthy lifestyles and animal welfare. The newly launched Eating Better national campaign has created a message about eating smaller quantities of meat, and obtaining this from livestock raised by a higher standard of sustainability and animal welfare (Eating better). The twin benefits of reducing meat consumption for health and animal welfare can help politicians, NGOs and others to shape a powerful narrative that will persuade consumers of the need for change.

The issue of meat consumption is not only for the government in Westminster to consider. Effective action on meat consumption can also be taken at a more local level, as has been demonstrated by cities around the world, including San Francisco, Sao Paulo and Cape Town. Local councils in Oxfordshire already have a strong record when it comes to tackling environmental issues such food waste and recycling. Oxford also has some advantages that would make it a great place to start a local campaign to make our diets sustainable. The most important of these is the exceptional ecosystem of sustainable businesses, community groups and NGOs in Oxford. These could come together with the local and county council to form a coalition that would drive the required changes in consumer choices, public procurement, retailer supply chains and elsewhere.

1.2 THE CHALLENGE

Our current diet and population growth puts us on a trajectory that cannot be sustained in the long term. The current world population of 7.2 billion is projected to increase by 1 billion over the next 12 years and reach 9.6 billion by 2050, according to the United Nations (2013). Global demand for foodstuffs will rise in step with population growth, requiring a 70% increase in world agricultural production (FAO, 2009). Part of the required increase will be due to rising incomes in developing countries, which will allow increased consumption of meat and dairy products. The need to grow cereals to feed nearly twice as many livestock will place pressure on our limited supplies of arable land and water, and could make food increasingly unaffordable for the world’s poorest, resulting in food shortages and riots of the kind that occurred in a number of countries in 2008 (UN, 2013).

Richer countries need to find a way to achieve a diet that will allow us to feed over 9 billion people by 2050. If they can do so, this will not only directly reduce the pressures on the world’s food production systems, but will also provide an example to developing countries and encourage their governments to adopt policies that encourage the kind of consumption that can be sustained globally in the long run. If the number of livestock were reduced in the UK or elsewhere, this would free up a disproportionately large amount of land to produce other foods, because of the quantities of grazing or feed required to produce meat, particularly beef. The feed ratio for cattle can be anywhere from 5 to 20 kg of feed to produce 1 kg of meat (National Research Council, 2000). The same amount of fertile arable land can produce several

9
times more calories for humans if crops are grown to feed humans directly rather than through livestock.

There is now a growing body of research showing that changing diets is a powerful strategy to fight climate change. Recently, Peter Scarborough and his colleagues at the University of Oxford took data on the real diets of more than 50,000 people in the UK, and calculated their diet-related carbon footprints. They calculated the impact of various changes in diet, and found that “if someone eating more than 100 grams of meat a day simply cut down to less than 50 grams a day, their food-related emissions would fall by a third.” On their most extreme scenario, “if those eating more than 100 grams of meat a day – a fairly small rump steak – went vegan, their food-related carbon footprint would shrink by 60 per cent, saving the equivalent of 1.5 tonnes of carbon dioxide a year” (Scarborough et al, 2014).

1.3 BARRIERS TO ACTION

A. Lack of awareness

It is only relatively recently that the relationship between livestock and sustainability has begun to attract attention. The publication of the FAO’s Livestock’s Long Shadow in 2006 attracted a great deal of media attention because of its controversial claim that livestock contributed more to global greenhouse gas emissions than transport (Steinfeld, 2006). It is still the case today that the issue is not as prominent in the public consciousness in the UK as other forms of unsustainable consumption. One problem is that carbon emissions embedded in meat production are simply not as obvious to the consumer as emissions in the exhaust coming out of their car.

Apart from the lack of public awareness of the problem, there are two other major obstacles that have so far prevented politicians from taking action.

B. Politically unpalatable

Firstly, politicians may understandably worry that intervention to discourage the consumption of meat would be unpopular and politically dangerous, and that is would be perceived as a step too far for the “nanny state”. However, it is important to note that UK government institutions already provide guidance on diet, for instance through daily recommendations on intake of nutrients, suggestions on what constitutes a balanced diet, and regulatory measures to combat, for instance, high salt or high sugar intake. This type of intervention on public health grounds could justifiably be extended to the consumption of meat, as part of an effort to promote healthier lifestyles. For instance, while the recommended consumption of red meat consumption is 70g per day, the average UK consumption for men is 88g per day (NHS, 2015).

C. Vested economic interests

A second difficulty is caused by vested economic interests: the meat production industry provides employment for many thousands of people, and governments are reluctant to do anything which might have a damaging economic impact. In some countries industry bodies and major producing companies have embarked on aggressive marketing campaigns and increased their lobbying efforts. Also, discussion of ‘less’ consumption can appear at odds with the dominant ‘growth’ policy mantra.

However, there is now a growing awareness in government and the third sector that the issue of meat consumption must be included in strategies to combat climate change and make our diets more sustainable. The government’s Green Food Project released a report in July 2012 which urged action to guide consumers towards a more sustainable diet, including reduced
meat consumption. In June 2013 the MPs on the UK Parliament's International Development Committee recognised that one important element to address global food security is for people in Britain to move towards eating meat less often and for meat to be produced in ways that have less impact on the environment, such as pasture-fed beef. July 2013 saw the launch of the UK's Eating Better campaign to reduce meat consumption, supported by a range of NGOs (Food Climate Research Network, 2013). Momentum is thus building for a drive to reduce meat consumption in the UK.

### 1.4 Recommendations

The table below shows a range of available policy options ranging from “soft” options such as the provision of information to “hard” options such as regulatory limits on meat portions.

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Figure 1. Overview: Demand Management Policy Measures and Examples (adapted from Cordts, Nitzko & Spiller, 2014).

“Soft” policy options that engage the public and exemplify the changes needed are more appropriate at this early stage than “hard” policies restricting choice or providing financial incentives to alter consumer behaviour. Indeed, informational campaigns about the negative effects of meat consumption form an important precondition for building consumer acceptance of more invasive measures, such as taxes, subsidies for meat substitutes, or ceilings on meat portions (Cordts et al., 2014).

There is, of course, a need for care is designing such a campaign to avoid public controversy. Fortunately, there is a range of possible arguments for reducing meat consumption drawing on the health, sustainability and animal welfare benefits. One can avoid problems by thinking strategically about which particular arguments or issues to utilise in the information presented to the public. A successful campaign will draw on a range of arguments, be easily understood, and make it clear how to take action. The strategy that has been adopted by a new NGO campaign to reduce meat consumption is to frame the issue in terms of "eating but better", that is, having a healthier diet with smaller amounts of higher-quality meat (Eating Better).

A further opportunity is presented by the interest among many sections of the public in experimenting with new diets that promise to improve their health. The emerging movement of “flexitarianism” bypasses the traditional opposition between strict vegetarianism and unrestricted meat-eating by advocating smaller steps towards reducing one’s meat consumption such as one or more meatless days a week. Reducing meat consumption does not need to be presented as a sacrifice, and can instead be portrayed as a change towards a diet that is more healthy and more sustainable.

Recent research shows that there is unexpectedly high demand from consumers for such a healthier and more sustainable diet. According to researchers from Imperial College, “[while] red meat and dairy are a ubiquitous part of the everyday British diet, there are latent
consumer perceptions about what constitutes a healthy diet and a desire to reduce intake of both dairy and meat which could catalyse change more easily than we had at first thought.” (Jackson, Lee-Woolf, Higginson & Wallace, 2009) This presents an opportunity not only for government, but also for retailers and caterers, who could tap into such consumer aspirations by improving their offering of sustainable foodstuffs and showing a commitment to sustainable food.

The shift in consumer behaviour that is needed can be kick-started in Oxford through a public campaign to promote and celebrate meatless options, a tactic which was first tried by the Belgian university town of Ghent in 2009 and has since been copied by cities such as those given above (see Case Study for more on how this was done). Local government can exemplify and encourage the kind of change that is needed by working with caterers to make vegetarian meals the default option on one or more days a week in canteens in schools, hospitals etc. A third route to making our levels of meat consumption more sustainable is to engage with major retailers in Oxford so as to encourage them to improve the sustainability of their meat and dairy supply chains and to educate their customer base around appropriate meat volumes, and the available alternatives.

In the case study below, we offer an example of a local campaign to promote meatless options, which could be adapted to local circumstances in Oxford or other towns in the UK.

### 1.5 Case Study: Ghent’s Thursday Veggie Day Campaign

The city of Ghent in northern Belgium promotes a meat-free day each week with the aim of reducing environmental impacts including greenhouse gas emissions, improving health, and improving animal welfare. Ghent is, like Oxford, a university town and has a population of about 240,000, of whom around 25% are students. The campaign has had strongly positive effects for Ghent’s inhabitants. A healthier diet reduces the costs for the local council through fewer lost days to illness and lower demands on the healthcare system. Ghent has also enhanced its reputation as an innovative and progressive city, increasing tourism. Since Ghent launched this campaign in 2009, it has been copied and adapted by other cities around the world including San Francisco, Cape Town and Sao Paulo (WWF).

The campaign aims to make it easy and attractive to eat meatless options both at home and in restaurants across the city. Ghent uses carefully developed strategies for schools, restaurants, and city employees, in order to do this. From 2009 Ghent's municipal schools and day-care centres have provided a vegetarian lunch on Thursdays; children who bring their own lunch to school on Thursdays are also encouraged to go vegetarian, using engaging and entertaining messages. For instance, a special campaign towards schools features a Little Red Riding Hood who is glad that the wolf will be eating veggies at least one day a week (WWF).

Ghent also reaches out to its 250,000 residents through a variety of channels. These include an annual high-profile event, a signature list for citizens to express their commitment, a website and monthly magazine, information pillars with posters, etc. Ghent particularly encourages the city council’s employees to act as ambassadors and eat vegetarian on Thursdays. The council enables them to do so through cooperation with staff canteens and other restaurants, all staff receiving the “Veggie Street map”, and informational veggie-lunch meetings. Restaurants and sandwich bars in Ghent receive support and promotion as part of the campaign. There are vegetarian-cooking workshops, a Thursday-Veggie Day package of door banners, posters and stickers, and promotion of participating restaurants through city publications, for example. Ghent is currently working towards extending the Veggie Day project further with potential partners like hospitals, the city’s university, hotels, etc., with the aim of becoming a carbon neutral city by 2050.
The Thursday Veggie Day campaign is unusual in that it is the result of cooperation between the city of Ghent and Belgium's largest vegetarian organisation, Ethical Vegetarian Alternative (EVA). The combination of EVA’s expertise and communication strategies and the city council’s support has been crucial in making the campaign a success. Any local campaign in the UK should aim to build a similar partnership that includes local government, NGOs and community groups.
2. SEASONALITY AND FOOD MILES

2.1 INTRODUCTION

The concept of ‘food miles’ has become widely popularised among UK consumers (Sustain, 1999). Defining the problem of sustainable food consumption in terms of ‘high food miles’ suggests that the solution is to consume locally produced food, reducing the need to transport food across countries. However, there is now a growing body of research proposing that eating products that are ‘home-grown’ or ‘made in Britain’ does not necessarily ensure a more sustainable lifestyle than buying imported food. The concept of food miles is an indicator of the miles travelled from field to fork, but this is an inadequate measure of carbon emissions associated with food production and transport. As we explain below, there are many cases where it is more environmentally sustainable to buy imported fruit and vegetables than to grow them out of season in the UK, because the impact of the production process is far greater than that of transport. Food miles are problematic because they make no distinction between different types of transport: the difference in emissions between air and ship freight is enough to significantly interfere with the concept of food miles (Sustain, 1999). Other considerations include the need for chilled storage during the transport stage and during distribution. We therefore need to consider educating consumers about other proxies for sustainability, such as seasonality.

The carbon emissions caused by transporting food makes up only a small proportion of total emissions. A study commissioned in the US found that 83% of carbon emissions in the food system result from food production, 5% from wholesaling and retailing food, and 11% from transporting it (Weber and Matthews, 2008). Hence, while buying local food or food that is imported from countries closer to UK may help to reduce food miles and emissions from transporting food, it is not necessarily beneficial overall. One early study showed that total carbon emissions from producing and importing Spanish tomatoes to Sweden were less than that from production and transportation of tomatoes grown in Sweden itself (Carlsson, 1997). Despite travelling a greater distance, Spanish tomatoes imported to Sweden have a far smaller carbon footprint compared to those grown locally, as the emissions generated by heating and lighting greenhouses in northern Europe exceed the emissions from transporting imports.

In the majority of cases, the consumer who wants to ensure their behaviour is sustainable is best advised to purchase food that is in season in the country of origin. This avoids most of the difficulties associated with weighing up imports against food produced in the UK. If there is a period of the year when the food is in season in the UK, an environmentally conscious consumer would do best to buy it only at this time of the year, when the emissions associated with production are likely to be at their minimum. This also means that the consumption of this food will not be associated with emissions from transporting imports. If the food cannot be grown in the UK and has to be imported, consumers should aim to buy the food only when it is in season in the country of origin. More complex calculations about the carbon footprint of different sources are of course possible, and when weighing up the sustainability of imports from different countries they may be unavoidable. For the majority of foods, however, the best way to ensure a lower carbon footprint is to understand at what times of the year a food product is in season and can thereby be produced without extra inputs of heat or light.

2.2 BACKGROUND

In a recent report, the National Trust highlights the idea that a sustainable diet must be founded on principles of seasonal consumption. Alongside other benefits, its report cites “reduces greenhouse gas emissions”, “more likely to be produced on sustainably managed land, using sustainable methods” and “healthy eating of fresh produce, in tune with the
seasons” as sustainable effects of eating seasonally (2009). However, it notes that 90% of the fruit and 40% of the vegetables consumed in Britain are grown overseas.

A trend of declining production and growing importation in the UK stretches back to the 1990s. Strategies to limit greenhouse gas emissions need to focus on encouraging the use of foods which are guaranteed to require less energy. Garnett (2006) cites examples of the most carbon-intensive foods: air-freighted delicate vegetables such as baby corn, out of season packaged salad and exotic air-freighted fruits. Staple indigenous fruits and root vegetables are named as the most environmentally friendly choices.

However, 75% of 18-24 year-olds do not know the seasons for classic British fruit and vegetables (National Trust, 2009). Another study found that only 10% of respondents could be said to know when British fruit and vegetables are in season. Even the more obvious summer fruits’ harvest period was not known, with only 4% knowing that August and September is the season for plums. The highest-scoring food was the potato, but only 13% of people knew when it was in season (Paten, 2014).

Indeed, Kemp, Insch, Holdsworth and Knight (2010) found that the average supermarket shopper was not motivated by consideration of food miles, let alone seasonality: 5.6% of supermarket shoppers interviewed mentioned country of origin as a reason affecting choice of product, and 19%, when asked, knew what country their product was from. Two shoppers out of the 251 interviewed mentioned seasonality. This suggests that there is some way to go in promoting the concept of sustainable behaviour, before coming on to a more detailed approach. Nevertheless, it is vital that campaigns target the correct sustainable behaviours instead of raising awareness of unhelpful concepts like food miles.

An online survey by the Department for Environment, Food & Rural Affairs (DEFRA) found that nearly 30% of respondents were interested in increasing their consumption of seasonal foods a little and one in eight said they wanted to increase this by a lot. Respondents acknowledged that their perceived knowledge of growing seasons for different foods was fairly limited, with half claiming “a little” knowledge. 24% described themselves as having “very little” or “no knowledge” of natural growing seasons (DEFRA, 2012). As with other areas of sustainability, it would seem that people display an interest in the subject when it is mentioned, but that this interest does not translate to decisions made on the spot in the shops. This is likely to be because people cannot make good decision when they are not informed about issues of seasonal food, even though they want to be.

This issue will only become more pressing over time. DEFRA highlights that older generations are more knowledgeable about seasonal food, while younger groups are “both less knowledgeable and less interested” (DEFRA, 2012).

2.3 Barriers to action

A. Perceptions as to price of seasonal food

DEFRA (2012) found that perceived cost was the main barrier to consumption of seasonal food. This perception was impeding purchases even though seasonality was strongly associated with positive attitudes to local sourcing. Indeed many of the reasons for choosing these foods overlapped with the reasons for choosing local foods. DEFRA define this barrier as ‘perceived cost’ because seasonal food is often more readily available and thus cheaper than alternatives. The misperception as to the cost of seasonal foods may be due to the fact that certain types of gourmet food are often marketed as seasonal, such as lamb and asparagus. It may also be due to a comparison with out-of-season prices for these foods.
B. Lack of knowledge

The main influences affecting consumers who claimed not to be at all interested in seasonal food were lack of knowledge of seasonality and the belief that it restricts food choices. The relatively higher price of seasonal food was also a consistent concern present across all socio-economic groups. This suggests that consumers need to be educated about the relative costliness of buying foods that are out of season, and about how to cook meals that only use seasonal foods. DEFRA’s report concludes that “clear, easy to see point-of-purchase information and leaflets to take away would be the best way to reach shoppers.” Researchers also encountered voices calling for “a seasonal foods section, like the current organic section, in supermarkets.”

2.4 Recommendations

The key message is that food ‘grown in Britain’ is not a sustainable choice if it has to be grown out of season. Consumers should strive to make an informed choice as to what kinds of food to purchase if they wish to reduce their carbon footprint. Campaigns and workshops should raise awareness of the significance of the sources of carbon emissions production, as well as the trade-offs between home-grown food, energy use in production and year-round availability. The simplest solution that they can advocate is for consumers to consume local, seasonal food since such food is usually produced under favourable environmental conditions which cause relatively less carbon emissions. If consumers are better educated and look for sustainable food, this will incentivise supermarkets and other food retailers to supply more food that is produced in environmentally-friendly ways.

Existing healthy eating and ‘green’ initiatives in schools and support groups should make sure that seasonality is prioritised over ‘eating British’ to ensure correct knowledge of food’s carbon footprint and good practice. Resources such as recipe books, menu planners and nutritional booklets should be organised by season or at the very least contain an indicator of when ingredients are in season. Food calendars are also a fantastic way to raise awareness of seasonality. The work involved to effect this transition would be minimal as existing recipe books often contain guidance as to a dish’s season. Since all socio-economic groups were found to have limited knowledge about seasonal food, it seems that all areas of society could benefit from this initiative.

There is substantial scope for local government, NGOs and community groups to engage with retailers and businesses to support them in encouraging their customers to make sustainable food choices. This could involve suggesting simple steps to improve the visibility and marketing of seasonal food, either through clear signposting in shops or by rearranging products into ‘seasonal produce’ areas. Local retailers could also be provided with materials such as posters explaining what different labels associated with sustainability actually mean.

Food providers in the community can be supported in creating menus which are based around seasonal ingredients, for example through inclusion in a network of “Pathfinders” (see Food-Printing Oxford report for more on this) or promotion as part of sustainability events (see Case Study on Ghent above). Such a collaboration could be presented as beneficial to these businesses, since it would encourage consumers to buy products which are often more costly and which may provide a higher profit margin. More importantly, it would enhance the business’ reputation for social and environmental responsibility, which would likely increase their ability to attract new customers and keep existing ones.

In addition to this engagement at a local level, we believe that changes in food labelling policies of producers and retailers would be very helpful. For example, seasonal products could carry a small logo with the month(s) they are in season (in its country of origin; grown without artificial energy). This would help shoppers know instantly whether the product was seasonal.
3. LOCAL FOOD

3.1 INTRODUCTION

Our main point in this section is that there are a variety of good reasons for encouraging consumers to buy food that is produced locally. Although local does not necessarily mean sustainable, it is a crucial step in the right direction, for the reasons given below.

Before this, however, a few preliminary points must be made about the impact of local food on sustainability. The subject of local food is, of course, closely linked, to the one of food miles discussed above. The inherent advantage of geographical proximity means that locally sourced food generates lower carbon emissions than imports, provided this effect is not outweighed by higher emissions from the production process. However, there are two main reasons why local produce does not necessarily equate to sustainability. First, the distribution networks used to transport food nationally have substantial efficiencies of scale, whereas locally produced food are often transported in smaller quantities by the producers or others. This may lead, other things being equal, to higher carbon emissions for locally sourced food in comparison with food grown in the UK and distributed through an efficient central network such as those operated by major retailers. Secondly, the geographical source of food is not always an accurate indicator of sustainable production and supply practices by local producers. The topic must therefore be approached with the understanding that there are many factors involved (Coley et al., 2008), and localisation of the food system alone is not the panacea to food sustainability issues – there must be a complementary integration of other policies.

Nevertheless, while we recognise that the provenance of a food product alone may not be a satisfactory proxy for its impact on sustainability, there are still good reasons to invest in the concept and encourage consumers to purchase local food.

Firstly, developing the local food system can improve food security within Oxford. An increased focus on locally sourced food minimises reliance on imports and promotes sustainability within the food system in the sense of increased self-sufficiency. This is likely to become increasingly important in coming years as the cost of fuel goes up and transport becomes more expensive. In the long-run, there are global pressures on food supply (explored above in “Meat Consumption” section) which will make it more dangerous to rely on imports and expose oneself to price volatility in the global markets in foodstuffs.

Importantly, increased consumption and sourcing of local food products makes the issue of sustainable production practices more visible and gives consumers and regulators greater control over the sustainability of the foods they purchase. The farming methods of local producers are easier to monitor and evaluate than those of foreign producers and can be regulated in order to reduce negative impacts on environmental sustainability.

Secondly, the promotion of local food can contribute to a wider shift in dietary patterns that reduces the consumption of imported foods. Airfreight is a particular target here: it increased by 140% from 1992 to 2005, and accounts for 11% of the food transport CO2 equivalent emissions (AEA Technology, 2005). As noted above, localisation would reduce the need for unnecessary importation and thereby cut environmental costs. Growth in demand for locally sourced products could also increase efficiency and economies of scale above that which the present local food system enjoys.
3.2 Current situation

As of 2013, less than 1% of Oxford’s food was derived from direct local sources, including farmers markets and local box schemes. The proportion of vegetables was marginally more encouraging, with an estimated 3.5% from local and direct sources, mainly from allotments and private gardens. In comparison, 51% of Oxford’s food was sourced from the rest of the UK, 33% from the EU, and 15% from the rest of the world (Low Carbon Oxford, 2013).

Despite what the figures above would suggest, consumer attitude towards local food in Oxford was optimistic. The 2011 OxFood Local Food Consultation found that “96% of respondents said that they would buy more local food if they could”; “86% of people agreed that local food production is an important part of our local economy”; and “82% of people thought that local was at least or more important than other factors such as organic and fair trade.”

There thus appears to be a disparity between Oxford’s consumer attitudes and actual purchasing behaviour. This attitude-behaviour gap could be explained by the fact that food products are generally low involvement purchases, and consumers often take into account many other factors, such as price and brand name. More distressingly, a 2010 study showed that only 19.1% of consumers actually knew where their food had originated (Kemp et al., 2010).

The following section will consider why consumers say they intend to purchase local food, as well as why these intentions have so far not been translated into substantial consumption of local food.

3.3 Factors influencing consumer choices

The seven following factors play a large role in consumers’ intentions to purchase local food:

• Environmental considerations
• A desire for quality and freshness
• A desire to support the local community
• Difficulty in differentiating local foods from other foods
• Perceptions of availability
• Perceptions of price
• Demographics

A. Environmental considerations

General consumer awareness and concern about environmental and food sustainability issues has been on the rise in the UK. This has led to an increase in ethical consumerism, motivated by third party guidance as to which foods to buy, including local foods. The fairly sophisticated knowledge and concern about food systems of some select consumers hint at the existence a core of “agro-ecological citizens”, who purchase local food because of a self-developed and intimate understanding of the dynamics of their local food system’s sustainability (Smaje, 2014).

B. Desire for quality and freshness

The consensus amongst consumers is that local foods tend to be superior to similar products produced and processed overseas. Customers at farmers markets, for instance, have cited a desire for better quality products as a key motivation for their sourcing for groceries from farmers markets.

In particular, freshness of the food products has been identified as the primary reason consumers would choose to buy local and regional food, especially amongst consumers who
already buy and those who want to buy local foods. This idea of local foods being fresher seems to be premised on two grounds: first, that it is fresher because it has travelled a shorter distance to the store; and second, that local food involves small-scale rather than factory-level production, which means less time spent in storage.

Attention to detail is also another consideration – customers expect more time and effort to go into the production of local foods, and perceive it to be conveyed through the presentation of the product which lends it a character unlike that of food from elsewhere (DEFRA, 2005). The very perception of the food as “local” and “wholesome” adds value to it.

C. Desire to support the local community

A sense of community spirit and support is another key reason consumers choose to go for locally produced food rather than food from elsewhere (Dodds et al., 2014). Many consumers desire to contribute financially to the local economy while lending support to local farming efforts.

D. Difficulty in differentiating local foods from food from elsewhere

It is often unclear to consumers which food products are local and which are not. The problem arises for several reasons. Firstly, locally produced food is often marketed alongside food from elsewhere and little or no differentiation is made. Produce from farmers markets and vegetable box schemes, for example, might not all come from the immediate region, but could be sourced from other parts of the UK.

Secondly, following from the above point, there is often a lack of clear labelling to distinguish local foods. Outside of settings where mainly local food is sold, such as farmers markets, consumers have little or no means of ascertaining which foods are locally produced. Even where labels are provided, many of them can be misleading and inaccurate. A study by the Local Government Regulation in 2011 indicated that almost 20% of foods labelled as “local” were making false claims (“Local labels on many foods are false”, 2011). This only leads to further confusion amongst consumers.

The problem is exacerbated by the fact that some consumers are unaware that local and regional foods exist and are available, whether generally or as a category. Studies suggest that improved knowledge of food provenance would encourage consumers to buy more local food (Oxford 2011; Pearson, 2011).

E. Perceptions as to availability of local foods

Accessibility and availability of local foods is a critical concern to be addressed. Many consumers believe that they do not have practical access to places selling local food, either because they are unaware of the existence of nearby suppliers that sell local food, or because they find it inconvenient to visit such places. While farmers markets and farm shops are perceived as obvious channels through which consumers can buy local foods, they raise the issue of inconvenience and lack of accessibility – people may not want to spend time visiting a variety of retail channels to purchase their groceries, and there is often uncertainty as to the opening times and availability of stock at such local markets. Supermarkets, by way of contrast, are valued by consumers because of the choice and convenience they provide and because they are an established part of consumers’ routines. This makes it difficult for local markets selling local foods to displace supermarkets.

F. Perceptions as to price of local foods

The perceived financial costs of purchasing local foods over food from elsewhere can be a disincentive for people to go for local food. A 2014 UK study found that 57% of those who
cancelled their subscriptions to a local vegetable box scheme did so because of costs or lack of selection, despite an intention to maintain a commitment to upholding environmental values (Smaje, 2014).

However, another 2009 study found that English vegetable box users considered the budget amongst their least important concern in respect of joining such local efforts (Brown, 2009). Furthermore, an OxFood study in 2011 found that only 22% of respondents thought of price as their major factor of consideration when purchasing food. It would appear that further comprehensive research on the impact of price perceptions on the consumption of local food must be conducted.

G. Demographics

In addition to the general factors affecting decision-making and purchasing behaviours as discussed above, demographic differences must also be considered. While demographics alone have been found to be not very significant in defining ethical consumer behaviour in the light of the prevalence of environmental awareness today (Diamantopoulos, 2003), it is suggested that an examination of demographic differences can still be useful in highlighting the key target audiences for any recommendations. For the purposes of this section, it will be assumed that Oxford’s consumer opinions by demographic do not deviate significantly from those of the rest of the nation.

The general trend appears to be that purchase of local food is positively correlated with age. 53% of respondents aged 55 to 64 in a 2005 DEFRA-sponsored research study indicated that they already buy local food and want to buy more. However, the younger age groups should not be so easily dismissed; 34% of consumers aged 18 to 34 buy local food and want to buy more, while another 12% who were not buying local food indicated that they would like to (IGD, 2005). Taking Oxford’s sizeable student population into account, it is crucial that local food is promoted and made available to this younger group of consumers as well.

Those in professional occupations also appear to be the least likely to buy local food, though interest is high. This is possibly due to time pressures created by the nature of their more time-demanding occupations (IGD, 2005). Recommendations would therefore have to take this concern into account.

3.4 Recommendations

The general aim of our recommendations, in view of the issues highlighted above, is to accelerate the growth of the market for sustainable foodstuffs, in particular local foods. This will involve maximising the visibility of local foods to correct consumer perceptions of the general unavailability of such food, whilst promoting awareness of the benefits of increased consumption of local foods. Overcoming these obstacles is essential to bridging the consumer attitude-behaviour gap as earlier identified, in order to encourage increase in actual consumption of local food. Currently, there exists a gap between consumer knowledge and their purchasing behaviour – even if consumers intend to exercise responsibility in their food choices, there is insufficient information available for them to discern and distinguish between outwardly similar products. At the same time, there is a prevalence of the reverse problem: of there being too much information for them to process, as evident in the proliferation of labelling methods and the lack of harmonisation between standards of various existing eco-labels in the market.

Given consumers’ preference to shop at supermarkets, the introduction of a “local” section where food products made or produced in Oxford are sold would bring local foods to customers who find farmers markets and other such outlets inconvenient. Many local food
Making Sustainable Food Choices

consumers in the UK have indicated that access to such a feature in supermarkets would be useful (IGD, 2005). Dedicating a specific display space for local foods would also raise their visibility, which would help create interest and awareness amongst customers who do not already buy local food, and help time-pressured customers who want to support local food identify and pick out such food products quickly and without confusion.

Another way to increase the visibility of local food is to implement a “Made in Oxfordshire” label scheme. This recommendation is explored in greater depth in the “Labelling” section of this report.

At the same time, extant efforts to market local food should also be bolstered. At present, Oxford boasts several farmers markets such as the South Oxford Farmers’ Market and the Gloucester Green Market. Rather than rely mainly on word of mouth, these markets could be advertised through a promotional campaign to raise awareness amongst the public. In particular, such campaigns could be targeted at tourists and students, given Oxford’s sizeable number of visitors and its student population. Efforts must also be made to effect clear communication of information about product availability and opening times, as these were cited to be stumbling blocks for many potential customers of such local markets (IGD, 2005).

These marketing techniques should target the key factors influencing consumers’ decision-making when buying local foods, namely the environmental impact, quality and freshness of the food in question. Placing emphasis on seasonality or the benefit of “low food miles” when promoting local food gives consumers a simple environmental impact standard to peg their purchasing decisions to, and attracts ethical consumers who want to make responsible consumption choices. The quality and provenance of local food should also be communicated to consumers in a simple and straightforward manner as these are of interest to them. This applies to both local foods sold in supermarkets and in specialist outlets such as local butchers and farmers markets, particularly for the former since a large amount of the message on the benefits of local food could be lost in the background of the complex range of products on sale at supermarkets.

Beyond promoting local food, consideration must be taken as to the future of local food. A shift towards a sustainable and self-sufficient food system would to some extent require an expansion of the market that involves increasing the variety of local foods available for purchase where possible. Customers who do not presently buy local food but would like to are interested in obtaining local foods beyond just vegetable and fruit produce: cheese, cooked meats and ready meals are amongst the options suggested. Categories that were the most popular amongst current customers of local food, such as bread, vegetables and fruit, were less popular with potential buyers. This suggests that there is a need to expand the variety of local foods to include those not widely available at present, and to tap upon that unmet demand to increase the attractiveness and spread of local foods.
4. FOOD LABELLING

4.1 INTRODUCTION

Given that sustainability encompasses everything from carbon footprints to seafood catch methods, from a food's provenance to its disposal, shifting consumption patterns in a more sustainable direction will necessarily involve a huge variety of policies, many of which are clearly beyond the scope of a single city or region. At the local level, however, focusing on food labelling could provide a way to cut across all the main issues of sustainability mentioned above, without putting undue pressures on or constraining the choices of retailers and consumers, while simultaneously promoting local businesses. The overwhelming number of labels and dates on supermarket products relating to environmental and social sustainability or expiration, their low visual impact, and lack of clarity among consumers as to their meaning, all help explain current low consumer engagement with labels. Small but meaningful shifts in consumer purchases towards more sustainable foods could be made in Oxford by maximizing the informational impact of existing food labels.

This report concentrates on two interrelated initiatives related to food labelling. First, building label literacy into existing school and social service curricula on healthy eating, along with providing and disseminating simple label guidelines to consumers would be a cost effective and non-intrusive means of encouraging informed consumer engagement with food choices. Secondly, Oxfordshire could implement complementary programmes to increase the visibility of local foods, such as a voluntary “Made in Oxfordshire” label scheme to identify foods made in Oxfordshire. This more ambitious program would benefit from being rolled out alongside the wider public campaign for label literacy, which together would provide an engaging narrative for the public.

4.2 CURRENT SITUATION AND PROBLEMS

In the UK, there are usually three types of food dates that are printed on food packaging:

1. **Use by:** This is a guideline for food safety. The Food Standards Agency (FSA) advises that products should never be eaten after this date and storage instructions should be carefully observed.

2. **Best before:** Usually on longer-shelf-life foods such as frozen, tinned or dried goods this refers to quality rather than safety. The FSA advises consumers to use their judgement when deciding whether food is edible, commenting that it should be safe to eat food after the 'best before' date, but food may no longer be at its best. One exception is eggs; eggs should never be eaten after the 'best before' date.

3. **Display until/Sell by:** This often appears near or next to the ‘best before’ or ‘use by’ date. They are used by some shops to help with stock control and are instructions for shop staff, not shoppers.

Food packaging usually also conveys a wide range of other facts about the product, such as the list of ingredients used to make it, any necessary warnings prior to consumption (e.g. high alcohol content), and instructions for use. Additionally, a wealth of voluntary label certifications exist to identify businesses with sustainable business schemes such as the Marine Stewardship Council’s (MSC) sustainable catch seafood label, Linking Environment And Farming (LEAF), the Red Tractor label, and many more.
A. Differing concerns and standards

While food labels provide consumers with necessary information when deciding the types of food to purchase and consume, the proliferation of labels reduces their effectiveness in conveying information to consumers. Many organisations and agents seek to promote the consumption of sustainable food through providing labels to help consumers identify certified food products which meet the standards of sustainability in food production as set out by the various organisations. However, food sustainability is related to a variety of environmental issues, and different organisations tend to consider different environmental impacts. For instance, Carbon Trust focuses on the emission of carbon dioxide and other greenhouse gases, Conservation Guide considers the impact of food production on biodiversity, while Soil Association Organic Standard emphasises the protection of wildlife and the environment, such as limiting the use of chemical fertilisers and banning animal feed. Apart from environmental considerations, socio-economic and ethical considerations are also taken into account. For example, Fairtrade looks into the implementation of fairer prices that provide for better working conditions and encourages the protection of workers’ rights.

Apart from there being different concerns, existing schemes in the market may also employ different standards to address the same concern. For example, in the market for fish, schemes cover different aspects on the issue of sustainable fish sourcing. In the absence of fish supplies from fisheries certified by Marine Stewardship Council (MSC), an international non-profit organisation whose standards are applied globally, many private producers and retailers establish their own standards which can cause confusion amongst consumers (Which, 2010).

B. Poor label literacy

There is a substantial body of evidence which suggests that existing labels are rarely noticed or poorly understood (Gadema & Ogelthorpe, 2011; Enright et al 2010; White et. al. 2009). These studies find high levels of confusion, and stress that consumers need guidance separating out regulatory from market claims, understanding complex carbon footprint labels, and avoiding food waste from misinterpreting use-by dates. White et. al. (2009), in a synthesis review of research conducted on engagement with food labels in the UK, point to an eye-tracking study (Rawson et al, 2008) in which consumers largely did not look at labels, arguing that “simply providing labelling does not mean consumers will seek it out” (71). This is consistent with Enright, et. al., (2010)’s identification of “non-[label] readers” as one of three major clusters of shoppers, and their finding that without a specific reason such as health or prior awareness, no label in itself will draw these peoples’ attention. At the same time, this does not mean that consumers are indifferent to labels. In fact, “there is a receptive audience for improvements in the delivery and labelling of improved environmental attributes for food and in particular, this is expressed by younger shoppers, who are the ones that will be around to deliver targets to 2050” (Gadema and Ogelthorpe, 2011). For instance, up to 72% of customers would like to see carbon footprint labelling on food (ibid.).

The problem, then, may simply be introducing label schemes to customers in a clear, informative, and memorable way. In a survey conducted by Which?, many consumers interviewed supported the idea of a more succinct, standard labelling system for ingredients and other information. Yet as the UK government and the European Union continue to develop, debate, and revise definitions of ideal diets for health and sustainability, clarity and consistency in providing information to consumers is likely to remain difficult (DEFRA, 2010). DEFRA, recognizing the same problems and concerns, has produced a green claims guide which is designed to help all kinds of producers selling environmentally-friendly products. At the national level, much research is being done to investigate the impact of different label designs and to streamline and regulate health, environmental, and social labels on food, recognizing that they still remain an important informational tool of policy intervention (Garnett, 2014). Further, it is increasingly understood that external sources of information -
namely increasing media coverage and education on health, animal welfare, and sustainability issues, appears to translate into higher engagement with labels (Enright et al. 2010, Gadema and Oglethrope 2011).

Another source of confusion with labels centers around the difference between a ‘Use by’ date and a ‘Best before’ date. According to a food waste report by WRAP in 2008, 15.1% of uneaten food (in terms of weight) was thrown away by households as it was out of date, and 19.8% of avoidable food waste - defined as food items that could have been eaten if they had not been allowed to go off, had not been past their food date or had been wanted - was thrown away as it was out of date.

According to a food waste report by WRAP in 2008, consumers often misunderstand the meaning of the significance of food dates of the three types – ‘Use by’, ‘Best before’ and ‘Display until’. Research by the FSA also shows that food dates are poorly understood by consumers. The most recent survey shows that 36% of people interpret a ‘Best before’ date as a ‘Use by’ date and only 55% correctly interpreted ‘Use by’ dates. In 2011, FSA proposed new voluntary guidelines for producers to use only either ‘Use by’ or ‘Best before’ as date labels on food packaging. It was recommended that ‘Sell by’ and ‘Display until’ date labels which are used for stock rotation should be removed to avoid confusing shoppers.

However, more can be done to help consumers differentiate the significance between ‘Best before’ dates and ‘Use by’ dates. Food that has gone past the ‘Best before’ date can still be consumed, despite a decline in the quality of the food (DEFRA 2011). Better education of consumers about date labelling would help to reduce avoidable food waste by decreasing the amount of food that is mistakenly believed not to be fit for consumption and thrown away.

C. Difficulty in identifying local food

Consuming locally produced food can help to alleviate concerns related to food miles and carbon emissions in transportation of food. However, if consumers are not able to identify whether a food product is local, they are not likely to consider it when choosing what to buy.

In the context of Oxford, there is a lack of schemes and initiatives to help consumers identify locally produced food. However, there is a strong demand in the UK for local food (Dodds et.al. 2014, OxFood 2011). According to the 2011 OxFood Local Food Consultation, 96% of respondents said that they would buy more local food if they could, while 86% agreed that local food production is an important part of our local economy. On the other hand, while local food supply may be available, it is often unclear to consumers what is local and what is not. For example, supermarkets often sell local produce, but if this is not communicated to consumers, the “added value” is lost for local businesses and farms. There is often a significant gap between consumers’ stated values and preferences for local food, and their actual behaviour in supermarkets (Kemp et al 2010), which may be the result of a lack of ability to identify local food. Although many counties such as Oxfordshire host farmers’ markets and vegetable box schemes which provide farmers with special platforms to sell their produce, this produce may not actually come from the immediate region (Which?; DEFRA 2005). Hence, there is a need to introduce measures in Oxford to help consumers identify food which is produced locally.

At the same time, although dedicated "agro-ecological citizens" (Smaje 2014) may seek out alternative venues for local food, many consumers value the variety of options, the convenience, and the predictability of supermarkets, and so are unlikely to phase them out in favour of local markets or alternative food networks (DEFRA 2005, Smaje 2014).
4.3 RECOMMENDATIONS

Taken together, these findings suggest that focusing on visibility and effective marketing for local food would be a simple and effective way to boost consumption of local food, and that promoting “label literacy” could benefit a local food labelling scheme as well as drive increased purchases of other low-carbon and sustainable foods.

Promoting a local label

It is proposed that a central labelling scheme be implemented in Oxford that recognises locally sourced foods. This scheme would operate on two levels: for local eateries and markets, and for local suppliers and producers. For suppliers and producers, participants in the labelling scheme would be able to apply the label to their local products, increasing visibility of local foods for consumers. This would boost consumption of local products by creating an appealing narrative and sense of local identity. For local eateries and markets, the label would give visible recognition for their efforts in sourcing food locally and sustainably.

The scheme is intended to have several effects. Firstly, a community-based label would be an easy reference point for consumers to identify and distinguish locally sourced products from other similar products. This has the twin benefits of directing conscious consumers to products and eateries while raising awareness and encouraging less conscientious consumers to consider locally sourced food. The creation of an online database that compiles the list of participants would also raise visibility and awareness of the campaign. Local produce and eateries that support locally grown food could also be promoted to Oxford’s many tourists in order to boost the movement.

Secondly, the label overcomes the problems faced by other eco-labels in that, rather than having a wealth of criteria behind the label that consumers are not always aware of, the local label would focus on the sole criterion of the provenance of the food. This simplifies the decision-making process for consumers. While we acknowledge that local sourcing is not always an accurate indicator of sustainable food practices, local sourcing has a whole host of benefits described above in the “Local Food” section, and the community-based nature of the scheme allows for easier monitoring of the actual production practices of various producers which can subsequently be evaluated and remedied.

Thirdly, the scheme creates an incentive for suppliers and eateries to source responsibly and locally. By distinguishing them based on their support of food sustainability practices and marketing it as a selling point to consumers, suppliers and eateries are incentivised to alter their practices to gain eligibility for the scheme. The community-based nature of the scheme also means that it is easier to reach out to local companies and get them on board with the programme.

Finally, as a shire with both rural, agricultural areas and a cosmopolitan centre with a percentage of educated and “conscious” consumers, Oxfordshire businesses could benefit economically from the increased visibility offered by such a scheme, and the emotional or narrative element. These schemes would be relatively low-cost, and could be financed by requiring participating local business to pay a nominal fee (see the Case Study on the Shropshire scheme below) to help offset the costs of certification and printing.

Developing a public awareness and education campaign around label literacy

At the local level, a scheme to increase label literacy in schools, supermarkets, and elsewhere would maximize the impact of these labels, and give consumers a “toolbox” to make their own decisions about both the nutrition and ethical provenance of foods in supermarkets, and, equally importantly, help to minimize food wastage. Between sell-by dates, the British flag,
Fair Trade, Rainforest Alliance and Marine Stewardship Council certifications, carbon footprint labels, and phrases like “free-range” and “organic,” there is a clear need to provide consumers with the means for differentiating and navigating these labels, rather than assuming the labels themselves will attract attention and offer insight.

Such a campaign would go beyond simply telling consumers to “buy local” or “buy organic,” instead empowering them to make their own choices. At the same time, it would take advantage of the demonstrated propensity of consumers to use visual cues and “short cuts” in their habitual, and often rushed, food purchases (Enright et al., 2010). The more familiar these labels are to consumers, the more they will become a part of shopping routines. Consumers should also be aware of the significance of other information provided by food labels, such as the nutrition and the possible allergies that the food can cause. In particular, conveying the significance of the “Use by” and “Best before” date is important in helping to reduce unnecessary food waste. It encourages consumers to exercise cautious judgement when deciding if a food product can still be consumed after the ‘Best before’ date, instead of simply disposing of it.

Such a “label literacy” programme could combine a number of strategies:

- Partnering with retailers to display succinct and high-impact in-store guides, and providing posters and/or leaflets with concise label information.
- Ensuring that schools incorporate labelling into their existing food and nutrition programming (such as the Marine Stewardship council’s lesson plans).
- Providing similar educational materials directly to Oxfordshire’s workforce.
- Adding label literacy to the informational programmes provided to head start programmes and to existing nutrition programmes for low-income families.

This approach reflects the wider UK government strategy as reflected in the Food 2030 report, which argues that “People value different aspects of food, but not all consumers are able to purchase foods according to their values. The Government’s role is to ensure robust evidence to support people’s choices, and to give advice.”

4.4 Case Study: Shropshire Hills Sustainable Business Scheme

The Sustainable Business Scheme implemented by the Shropshire Hills Area of Outstanding Natural Beauty Partnership seeks to promote sustainable practices amongst businesses and consumers so as to reduce the negative impact on the environment, benefit wildlife and landscape while involving local people and visitors and supporting the local economy. Businesses that register with the scheme can gain access to more avenues to market their products and networking events with other businesses and the public, improve their reputation as a business that promotes sustainability, as well as reduce costs and improve profitability through seeking advice on reducing energy costs and carbon footprints.

Apart from complementing the ethos of the scheme, the official eligibility criteria for members include:

- Membership of Visit Britain’s/AA star rating system
- Farm holdings registered in an agri-environment scheme
- High standards of animal welfare
- Utilisation of local supply chains
A “buy local – be sustainable” stamp was designed and distributed among members as a label to recognise them for being sustainable businesses. Businesses also displayed the pledge to consumers as a form of reminder to uphold sustainable activities.

Such a scheme allows local businesses with practices that are economically and environmentally sustainable to be recognisable, hence increasing their appeal to eco-conscious consumers. Since the 2011 OxFood Local Food Consultation shows that a large proportion of people are willing to support locally-produced food in Oxfordshire, it is likely that an adaptation of the Sustainable Business Scheme, if effectively carried out, would be relatively popular and well-supported in Oxford.
5. Education

5.1 Introduction

This section of the report offers some suggestions as to how education initiatives can be used to increase sustainable food consumption. We argue for a focus on consumers with an existing desire to shop and eat sustainably. We believe that education is needed to close the crucial gaps identified in the introduction, between the consumer’s knowledge and the realities of sustainability on the one hand, and between individual values and action on the other. To this end, consumer education initiatives should provide information on what sustainable food is, and practical steps on how consumers can eat more sustainably.

We also suggest that there is a key role for the Oxford Council to play here, by bringing together information about sustainable food and disseminating it to consumers in an accessible form. This removes the burden of gathering information from consumers who often lack the time and motivation to do so.

To this end, we recommend a campaign to educate the public about sustainable food. This could include events to promote sustainable food or poster campaigns providing consumers with key facts about how to eat sustainably or how to interpret the various labels on food. Any such education initiatives should of course be carried out in a way that is integrated with the other policy initiatives we suggest, such as the labelling scheme.

5.2 Target Group

We offer some suggestions below about how to make sustainable food consumption easier and thus more popular amongst consumers. While the measures we suggest may have some effectiveness in persuading consumers who are not interested in sustainability, we do not have space here to go into the additional actions that might be needed to tackle this problem. We expect that plans focusing on enhancing consumers’ ability to act on their values will be easier to implement and more impactful in the short run, while generating momentum for more people to eat sustainably in the longer term.

There are already a significant number of consumers who are interested in the idea of sustainable food consumption (Which, 2010) and are willing to make changes to their choices, but are not aware of the right choices. However, there is considerable confusion as to what qualifies as sustainable food. For example, various standards employed by different labels such as LEAF, Red Tractor and Carbon Trust carbon footprint labels make it difficult for consumers to identify truly sustainable food (Which, 2010). Moreover, consumers are often sceptical and distracted by the sheer volume of labels and the information overload that is not being funnelled down into simple accessible routes to becoming more sustainable (Arias & Søebech, 2008).

5.3 General Approach

Educating consumers on how to eat more sustainably can be split into two key areas:

1) Providing straightforward measures and definitions of sustainability
2) Guiding consumers to make choices that are more sustainable

The first area, explaining measures and definitions, is important, though also prone to causing confusion. As acknowledged earlier in the introduction, sustainability is not a distinctly defined concept and consists of various different metrics such as carbon emissions or soil
damage. Many consumers recognise the necessity of sustainability for future welfare, but are demotivated by the effort needed to learn what being sustainable really means, and how the idea of sustainability should be approached (Which, 2010).

We need to find strategies to cope with the multiplicity of factors that make up the idea of sustainability. Although there is little consensus on whether certain aspects of sustainability are more important to concentrate on, the aspects the council chooses to focus education on may depend on which factors are seen to be the most straightforward and efficient for them to collect measurement data. Previous examples have shown that campaigns, education and initiatives with a clearer, narrower and more distinct focus will tend to get more attention than scrambled messages with convoluted issues or that try to address too many different aspects of sustainability (Arias & Søebech, 2008). Therefore, focusing on information and measures related to a few aspects of sustainability is likely to be more effective at mobilizing and encouraging consumers to be more sustainable. Definitions of sustainability that are too comprehensive are likely to bore or confuse consumers.

The local authorities and other stakeholders in the food supply chain in Oxford can more easily play an active role in addressing the second of our two issues: how consumers can practically go about acting sustainably when it comes to food consumption. As mentioned above, consumers often do not understand, or find it too difficult due to the lack of information available, to make the necessary lifestyle changes required for more sustainable food consumption. We therefore recommend splitting education on how to consume sustainably into three broad lifestyle changes that can be made.

1) Changes to the *types of food* that consumers are consuming: the importance of moving away from meat, and recognising and consuming seasonal foods, as discussed in the previous sections of this report.

2) Changes to the *sources* from which food is acquired – understanding indicators that can be used to determine sustainability in buying from different food sources. This aspect of education needs to be especially linked to labelling processes and initiatives, food supplier sustainability assessment and endorsement, and other policies that the council makes to source for sustainable food.

3) The ways in which, having bought food, consumers can *consume sustainably*, by minimising waste in cooking and eating food.

### 5.4 Recommendations

Having outlined the suggested focal points of education schemes, we now turn to the role that local authorities can play in providing effective education about food sustainability.

The council can use a variety of avenues to engage local residents and give them a clear idea of how to consume food sustainably. The council and government should aim to cut down the complexity of the issue and funnel down the array of information, guidelines and standards into a coherent and simple set of suggestions for consumers.

Existing initiatives in Oxford have begun to point consumers in the right direction, but even greater simplicity and clarity can be strived for. In the Oxford Good Food Charter, the consumer is exhorted to “ask where your food comes from and how it was produced”. Finding this sort of information, however, can be time consuming and demanding for consumers who may have to learn about particularly technical details of production. If consumers perceive this to be the case, they will be less motivated to consume sustainably. Therefore we strongly recommend that the council creates educational materials that provide consumers with rules
of thumb on eating sustainably, cutting away the complexity and providing consumers with answers in an easily accessible form.

There is evidence to show that using posters, small brochures and advertisements displaying the essential steps will be most effective, as they require little time and effort on behalf of the consumer. The successful Think! Food sustainability awareness campaign focused on a lot on small eye-catching initiatives such as posters and t-shirts. These could be positioned in strategic places like farmers markets around Oxford, or distributed to schools. Brief pointers can be an effective way to engage consumers without boring them and gradually to push them in the direction of a more sustainable diet.

A face-to-face approach involving educational sessions and classes can be useful in some circumstances. Places such as schools where a wider audience for classes can be reached easily are likely to be the most promising and cost effective ways to raise awareness through these means, but there is also scope for including educational talks in a campaign in other ways, for instance by providing them at a public event to promote sustainable food. When more interactive methods of education are used, we also recommend that they be used together in a short period of time to raise awareness and generate impact. For example, the Think! Campaign in Belgium created a large-scale but brief initiative which involved various activities such as tours of sustainable farms (Arias & Søebech, 2008). In a short space of time, such as a food sustainability campaign week, consumers are more involved and detailed messages are more likely to get across effectively, as they often reinforce each other.
CONCLUSION

In researching and putting forward our recommendations in this report, we have been concerned above all with practical steps that can be taken by individuals, community groups, businesses, retailers and the council right here in Oxford. Many people would agree that we have to work towards sustainability, but have no idea where to begin. They may feel daunted by the complexity and debate that often surrounds the topic of sustainability. Some may think that what they do as an individual will not make a difference, in the face of what may seem to be more powerful institutional or cultural factors. In order to combat this, the imperative of eating sustainably for the sake of our futures must be coupled with measures that make the choice to eat sustainably easier for consumers.

We have endeavoured to do that in this report by highlighting three key areas for change: reducing meat consumption, eating seasonally, and supporting local food. These three factors have a broadly positive impact on the sustainability of the food system, and are also likely to be easily understood by consumers and easily adapted into useful guidelines for them. Our report does not go into the technical details of measuring the sustainability of various types of food based on different criteria, recognizing the rich academic research which continues to be undertaken in these areas. Rather, we have focused on leverage points with low barriers to adoption in Oxford, with an emphasis on educational initiatives likely to lead to greater awareness about a variety of aspects of sustainability in the long term.

Raising consumer awareness and providing education is a common recommendation in each of the key areas. It is a natural starting point that information must first be made known to consumers in order for them to understand the problem and consider changing their habits. Moving on from the change in attitude, to secure change in actions by consumers, will then require cooperation between community groups, retailers and the council to effect change in practical terms. Initiatives such as providing meatless options, raising the visibility of seasonal and local foods, and creating a local labelling scheme are all envisioned to make it easier for consumers to choose the sustainable option when buying food.

Finally, we recognise that good quality information is a necessary part of the strategy in the long term. To this end, researchers at Oxford University and elsewhere are well-placed to provide relevant, cutting-edge research on the sustainability of various types of food, and the production of food in Oxfordshire. The Food Climate Research Network has already issued a call for research on the adoption of sustainable healthy eating, which includes research themes such as “What are sustainable healthy eating patterns?” (Garnett, 2014) Cooperation between the university and the local council can equip the council with the right information to take action and advise citizens. Such information can also be shared with Oxfordshire residents, ideally in ways that render academic findings practicable, such as concrete recommendations and rules of thumb regarding how to shop more sustainably.

With a concerted effort, endeavours to change the way we consume food in Oxford can not only improve the sustainability of the food system, but also serve to strengthen community ties and engender a greater sense of civic responsibility in the process.
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