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Urban and Community Food Strategies. The Case of Bristol

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ABSTRACT How can a city influence the food system? The first step is to understand how the food system operates and how the different elements are interconnected. The second is to understand the strengths and vulnerabilities in relation to food system sustainability and longer-term resilience. This article looks at how Bristol is exploring these challenges and how it is attempting to both inform and involve citizens and city decision makers by providing a holistic framework from which to develop a resilient food plan. At the heart of this challenge is finding effective mechanisms to bring together the right stakeholders to plan and implement change.

1. Introduction

Imagine if a city based its twenty-first century food planning on the following criteria:

- Maximizing the supply of staples from the surrounding city region
- Ensuring city-wide availability of 'cook from scratch' ingredients with which to prepare a healthy meal
- Maximizing the diversity of food markets and food retail
- Ensuring 'closed-loop' systems to reuse and recycle resources
- Maximizing the engagement of citizens in the food system

Whether or not this would result in a more sustainable and resilient urban food supply system is as yet un-tried, but these criteria are the basis for the 'Who Feeds Bristol? Towards a resilient food plan' report recommendations (Carey 2011). To reform the food system in this way has neither been built into local government policy and strategy, nor could a local government achieve such changes alone — it would require the commitment and pro-active buy-in from a wide range of city and city region stakeholders.

Bristol is the first UK city to establish a Food Policy Council, which was formally launched alongside the publication of the report 'Who Feeds Bristol? Towards a resilient food plan' in March 2011. This article looks at the background and motivations for work on food in Bristol; the approaches and outcomes; and the current challenges. It is based on the 'Who Feeds Bristol?' presentation given at the AESOP 2011 conference held in Cardiff.

Bristol, like any other city in the UK, is almost completely dependent on four large food supply companies (Tesco, Morrisons, Sainsbury's and Morrisons) who import 40% of the food they sell from other counties (Food Matters: Towards a Strategy for the 21 Century; Cabinet Office 2008) and collectively control around 75% of the UK grocery market share (Competition Commission, Groceries Market Investigation, Emerging Thinking report, 23 January 2007). Based on national figures, by the year 2000, the small independent retailers' share of the market was reduced to 6% (Institute of Grocery Distribution, Grocery Retailing 2002). This may now be even less, while the remaining retail sales are provided by a range of other players, such as street markets, wholesalers and food service companies.

The global food production and distribution systems on which Bristol relies are utterly dependent on cheap oil and gas. In the USA, the food system has been estimated to require 10 calories of fossil fuel for every 1 calorie that lands up on our plates (Giampietro and Pimentel 1994). 'Cheap' supermarket food relies on access to diverse markets with cheap labour, centralized distribution and 'just in time' delivery models, all of which are threatened by declining oil and gas reserves.

The lists of UK and global foods system inputs, outputs and impacts suggest that there is cause for concern. Our current direction of travel is only wise if:

- We are confident of cheap oil for ever;
- We have a never ending supply of new fertile land, aquifers, and mature rainforests to replace those that have been lost;
- We ignore the health damage, particularly for children, due to the shift to highly processed and heavily promoted poor quality food; and
- We ignore the damage caused by labour markets using exploited workers.

So why does a food plan matter? Bristol City Council has no statutory responsibility for food and no strategic plan to address long-term food security. The city is totally reliant on major supermarkets for food supply. Current economics are challenging for local sustainable agriculture but failure to increase this approach to farming and food supply could lead to greater food insecurity in the future. Using its food purchasing power, the city can create demand for sustainable food/food from more resilient systems (e.g. soil carbon sequestration, lower external farm inputs, closed-loop systems, etc.). Integrating consideration of the food system into the city's planning approaches could result in Bristol becoming a truly Green Capital with a productive green economy and green infrastructure. However, in order for Bristol to be clear about the best role it can play and the best design for a more resilient food system, decision makers and stakeholders first have to fully understand what the current food supply system looks like and how it operates, with an analysis of where the strengths and vulnerabilities lie.

2. Background and Context to Developing a Bristol Food Plan

This section sets out over time how food has emerged as a strategic concern in Bristol and which organizations are engaged from which angles.

2.1 Food Arrives on the Agenda

As part of its Local Agenda 21 response, Bristol City Council established Bristol Food Links in 1997/8 as part of its own Sustainable City team activities. Over the years

Bristol Food Links evolved into Bristol Food Network, moving from a fully funded Council initiative to a voluntary sector network with its own website and newsletter, supported by the Council. In addition to Bristol Food Links, the Council's own main food interventions have been to establish Bristol Farmers' Market in 1997 (the second in the UK following Bath), promote the uptake of allotments and more recently sustainable food procurement. The Soil Association has supported work on school and hospital meals through its Food for Life pilot work since 2004, followed by the development of the Food for Life partnership and catering mark. Beyond these interventions, however, the local food agenda has remained largely a concern of the voluntary sector with their focus more on food growing, skills development and food access.

2.2 A Green Capital, Peak Oil and Food as a Strategic Concern

In 2007, the Bristol Partnership (a strategic grouping of business, public voluntary, community and education sectors working on the Bristol 20:20 plan to make Bristol one of Europe's top 20 cities in 20 years) set up the Green Capital Momentum Group as a steering group for the Green Capital initiative. Its role was to steer the Green Capital initiative, on behalf of the Bristol Partnership and invite organizations in the city to play their part in helping tackle climate change and contribute to Bristol's ambition of becoming a leading European Green Capital.

With increasing concerns about decline of fossil fuels, the Green Capital group commissioned the Bristol Peak Oil report in 2009. 'Building a positive future for Bristol after Peak Oil' (Osborn 2009, 7) identified that 'any interruption in food supply or increase in cost risks devastating consequences'. In order for Bristol to avoid food crises, shortages, panic-buying and potential social unrest, we need a food production and distribution system that can provide adequate healthy, affordable, nutritious food equitably to every member of Bristol's population (Section 4, 39–47).

Alongside and in response to the Peak Oil report, Bristol Food Network members worked together to produce a 'Sustainable Food Strategy for Bristol' (Milne and Bristol Food Network 2009). The motivation for this was to give a clearer focus to the Bristol Food Network and pick up work that had been done ad hoc over the last decade through the various phases of Bristol Food Links. The strategy made recommendations for building a sustainable food system which include mapping land for potential food production and protecting land in and around the city; providing a supportive policy framework including planning, for producers to make a shift towards less reliance on fossil fuels; 'local sourcing' targets for caterers; research; training, education and awareness raising; improving local infrastructure to support more local food processing and trade.

As a direct result of the Bristol Food Network strategy, Bristol City Council, although unable to adopt the strategy themselves due to the requirements of local authority bureaucratic processes, instead adopted a 10 point Food Charter and Food Standards (Bristol City Council 2010), which effectively were a shortcut to a much longer process of developing Council food strategy. They also adopted a Climate Change and Energy Security Framework, which similarly make commitments to environmental-friendly approaches to food production. Work on the Bristol Council Food Charter brought together several different Council departments and established more joined up work around food through the Food Implementation Group. However, this did not lead to any of the recommendations in the

Bristol Food Network strategy being implemented. It became clear that these two separate actions were not enough; facts and figures for the city and the city region were lacking; there was still a lot of talk and very little action.

Following the publication of the Peak Oil report, the Green Capital put out an invitation for practical projects to take forward work on key issues identified. As part of this process, a baseline research project on the strengths and vulnerabilities of Bristol's food system was proposed and voted a priority. NHS Bristol then commissioned the 'Who Feeds Bristol? Towards a resilient food plan' work with support from Bristol City Council, through the Director of Public Health in April 2010.

3. The Research Approach

This section sets out the key lines of enquiry and approaches that shaped the 'Who Feeds Bristol?' research.

3.1 Main Areas of Investigation

The 'Who Feeds Bristol?' research was shaped around the following questions:

- Who feeds Bristol and where does the food come from?
- How does Bristol city's food supply system fit into the wider region's food supply system?
- What are the strengths and vulnerabilities?
- To what extent is the current food supply system that serves Bristol city region resilient to shocks and unexpected circumstances in the longer term?
- Which areas of the city and which groups of Bristol residents would be most adversely affected by vulnerabilities in the food supply system?
- What role and powers do the city's decision makers and key stakeholders have in shaping the food system that serves the city and the city region?
- What are the priority areas that need to be addressed in order to develop a more resilient food supply system for the future?

3.2 A System's Approach

'Who Feeds Bristol' looked at the six key components of the food system: production, processing, distribution, retail, catering and waste. It investigated the provision of basic staple food items; land use for current and potential food production; and the current food supply capacity from the surrounding region in relation to the food needs for Bristol. It also investigated which businesses were involved in preparing distributing, selling and recycling or disposing of food across the city region and within the city itself. Information was gathered from existing reports, databases, websites, surveys and business interviews (Figure 1).

3.3 Rapid Appraisal Approach

The study was concerned with the long-term resilience of the food supply system for Bristol, rather than with short-term emergencies. It was a 'rapid appraisal' done over 6

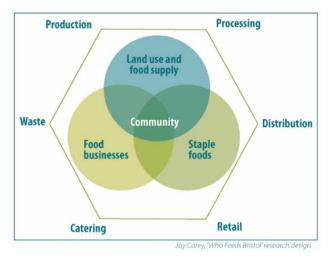


Figure 1. 'Who Feeds Bristol' research approach.

months in 2010 by a small team of people to get an indication of trends and issues. The team made use of available information and undertook specially designed snapshot surveys and interviews. An important finding was that there is a lack of comprehensive information and data in the public domain. Its conclusions were therefore inevitably based on estimates and approximations.

3.4 Focus on Staple Food Items

The report concentrated on 'staple' food items namely;

- Meat
- Dairy
- Eggs
- Fruit and vegetables
- Cereals, grains and bread.

Businesses that dealt with 'luxury' food and drink products (alcohol, confectionary, cakes, etc.) were not included, nor was seafood. The report did not consider issues of food quality and should not be interpreted as having done so.

3.5 'City Region' Approach

The area covered in the study is usually known as the 'West of England' or the 'Greater Bristol City Region' (A framework for City Regions, Working Paper 1, Office of the Deputy Prime Minister 2006). It was referred to in the report simply as the 'Bristol city region' for two reasons; first to fit with other reports and second with the purpose of considering the area as a 'bioregion' although this was not explored in any depth. The definition of a bioregion may be contentious but the concept of a bioregion was viewed to

be a helpful framework when discussing food systems. It was taken as denoting a political, cultural and environmental system, defined through physical and environmental features and through culture, local populations, knowledge and solutions.

3.6 Indicators of Resilience

The author and advisory group were well aware of the debates around the definition and concept of resilience and therefore defined it within the report glossary as 'the capacity to cope with and recover from adversity'. In planning and then undertaking the research, the following indicators emerged as the most relevant against which to consider the strengths and vulnerabilities of the food system.

- Staples supplied from the city region
- Availability of 'cook from scratch' ingredients with which to prepare a healthy meal
- · Diversity of food markets and food retail
- · 'Closed-loop' systems to reuse and recycle resources
- · Engaged citizens

4. Some Findings

The full report is 130 pages and the summary sets out some of the key findings (www. bristol.gov.uk/whofeedsbristol). Over 4500 businesses in Bristol city are registered with the Local Authority 'public food register', and of these some 3000 are dealing with basic staple foods. Broadly the businesses split into:

- Catering 74%
- Retail 21%
- Processor/manufacturer 3%
- Wholesale/distribution 2%

4.1 *Strengths and Vulnerabilities*

Of note are the following findings that begin to indicate where some of the strengths and vulnerabilities lie in the food system:

- The significance of the food and drink sector on the local economy (around 1 in 10 jobs in the city region is in the food and drink sector, mostly in retail, catering and hospitality).
- The South West has the greatest concentration of organic producers of anywhere in the UK, with 38% of England's organic producers, and 1.9 million hectares of organically farmed land (over 10% of the UK total).
- The pressure on the diversity of local shopping areas and on the independent food retail sector from the multiples and what appears to be a 'high street tipping point'.
- The current role and future viability of the Bristol Fruit Centre a fruit and vegetable
 wholesale market that supplies an area from Fishguard to Portsmouth and from northeast
 of Oxford to Penzance and whose main customers are independent retailers, catering
 suppliers, caterers, NHS and local authorities.

- The food purchasing power of several very large institutions and businesses and their potential to help build food supply resilience through their menus and food purchasing choices.
- Food waste nationally our current food system results in some 40% of food being wasted, either before being sold, or within households, restaurants and caterers. In Bristol 9000 tonnes of household food waste is currently collected and composted each year out of an estimated 20–25,000 tonnes of household food waste.
- The wide range of community food-related activity around the city that collectively provide experiential education and training resources for food growing and cooking.

4.2 Some Emerging Issues

- 4.2.1 Food production in the South West. Food production in the South West is dominated by livestock, accounting for 23% of England's cattle and sheep. It has some 5500 dairy farms and produces 37% of England's milk, channelled through three large national dairy processors. Vegetable production in the South West makes up around 6% of Great Britain's production. The main crops are potatoes, cauliflower, swedes, brassicas, carrots, parsnips and celeriac. There is some production of cider apples and soft fruit, but less than there was 50 years ago. The topography in much of the region restricts farm scale, and in some areas livestock production is the only feasible land-use option. Because of this a network of large and small abattoirs has survived. The vegetable area in the SW has declined as the growth of multiple retail chains has driven need for consolidation. This has favoured the larger scale farm businesses in East Anglia, where packing capability is now concentrated (Bowles 2010).
- 4.2.2 The pattern of food retail. The pattern of food retail in Bristol has changed significantly in recent decades. Some parts of Bristol still have high street food shops. Bristol Sweet Mart in Easton provides a positive case study, located in a busy, pedestrian-friendly area, and supplying local customers and over 100 restaurants and takeaways. The overall trend is away from diversity and balanced competition to one of consolidation and monopoly (Competition Commission 2000). The past few years has seen phenomenal growth in the 'big four' multiple retail chains, of Tesco, Sainsbury's, Asda and Morrisons. According to BBC Panorama (2010, December), in 2004 within Greater Bristol the 'big four' owned 19 stores, and by 2010 this had risen to 76. 'Who Feeds Bristol' research found that these figures had since increased further and that there are approximately 180 independent food shops left in Bristol, owned by 140 businesses; 21% of Bristol's registered food businesses are retailers but only a quarter sell staple food items: a garage or a sweet shop or a cinema selling popcorn is registered as a food retailer.
- 4.2.3 *Bristol's 2000 catering businesses*. Bristol's 2000 catering businesses range from very large to very small, and include the many hundreds of restaurants, pubs and other businesses in Bristol's diverse 'eating out' sector. Many depend on Bristol Fruit Centre wholesale market for their fruit and vegetable supply. Were Bristol Fruit Centre to collapse, this would lose significant local jobs and have a domino effect for thousands

of producers, caterers and independent retailers throughout the South West and further afield. Without Bristol, the next closest markets are Western International Market just outside London near Heathrow, or Birmingham. The market is under pressure because of the mode of operation of the retail multiples that control their whole supply chains 'in-house' and engage in practices criticized by the Competition Commission for their damage to market diversity, and distortion of competition. Potential ways of maintaining a wholesale market for the independents are explored in the report.

- 4.2.4 Local food supply. Local food supply, in this case meaning food from the city region (an area within a 50 mile radius from Bristol) is hard to access. Using available data, only 3% of registered food businesses are known to supply local food but there are some 39 regular farmers and fresh produce markets across the city region. In terms of staple food items and self-sufficiency, theoretically potatoes, milk & dairy products, beef, lamb, poultry and eggs are produced in enough quantities to meet the city's annual requirements from within a 50 mile radius while fruit, vegetables, wheat & cereals and pork are not. These figures are based on Defra data, but do not take into consideration the food supply needs of other neighbouring large residential areas, e.g. Swindon, Bath, Taunton (Rigo and Baines 2011).
- 4.2.5 Estimates for the area of agricultural land needed to feed a city. Estimates for the area of agricultural land needed to feed a city range from 0.2 to 0.5 hectares per person (Fairlie 2007–2008). This means that land area needed for supplying staple foods for Bristol would extend well across the subregion and into Wales (Geofutures GIS Tools 2009).
- Food production potential within Bristol city boundaries. Food production potential within Bristol city boundaries is difficult to assess but allotments and city food growing could produce several thousand tonnes of produce, with cash value of several million pounds, in addition to the recreational and educational benefits. Investigation revealed that there may be some 2082 hectares of land available for food production in Bristol. This includes existing farmland and smallholdings, allotments, a proportion of councilowned empty land, a proportion of land within school grounds and private gardens and 20% of parks and green spaces if this could be made available. It excludes other privately owned land, although there is potential here also. If Bristol has around 2000 hectares of land potentially available for food production, this might be enough land to produce around 10,000 tonnes of vegetables. Based on available figures, Bristol's total annual vegetable requirements may be around 60,000 tonnes per year. 10,000 tonnes therefore represents around 16% of its annual vegetable requirements. Based on figures from a year-long Bristol allotment trial there is the potential for 3800 allotment plots in Bristol to collectively produce £2,660,000 worth of fruit and vegetables. In terms of weight, Bristol's 3800 allotment plots could collectively produce 2,831,000 kg of fruit and vegetables (or 2831 tonnes), which would contribute around 4-5% of the city's requirements.

5. 'Who Feeds Bristol' Conclusions and Suggestions for Action

The report shows that Bristol has a wealth of local producers, wholesalers, processors, caterers and shopkeepers, and there is a strong network of community groups, organizations, and businesses interested in good, sustainably produced food. It also shows many opportunities

for improvement. These relate to inefficiency of the food system in terms of energy use and carbon emissions, irreversible depletion of soil, water aquifers, biodiversity, mature rainforests, fossil fuels and essential minerals such as phosphates, and adverse impacts for health from poor-quality food, and for the health and welfare of workers and animals. Fisheries are also at risk, although this has not been covered in the report.

- Good news key building blocks still within reach: land, skills, entrepreneurs, community interest.
- Not so good news we are currently not making the most of the potential for local food supply.
- Risk building blocks could soon disappear in the light of economic pressures and the impact of the large-scale supply chain business models.
- Challenge building a resilient food system is about ensuring diversity, flexibility and mitigating potential risks.

The report advocates a 'Food Systems Planning' approach for Bristol in order to build a food culture for the city that has the health of people and planet at its heart and makes suggestions for action based on the collated knowledge, to which more than 200 people contributed. These are summarized in Figure 2. Inevitably there are overlaps, just as we see overlaps within the different elements of the food system. The aim of this diagram was

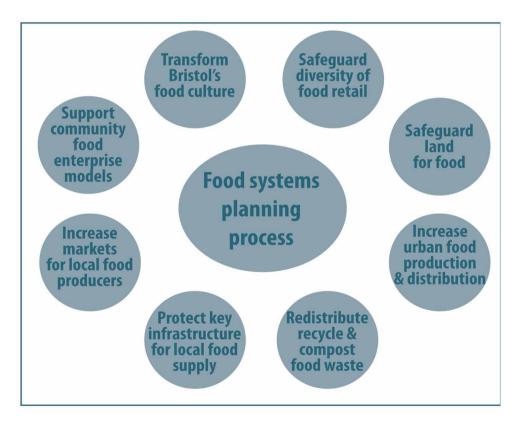


Figure 2. 'Who Feeds Bristol' — suggestions for action.

to provide a simple coordinating framework based on evidence, within which there is space for people to engage and discuss and find their own solutions. The challenge of taking a city on a food journey is immense and will not happen overnight.

6. Food-Related Developments since March 2011

How is Bristol as a city organizing itself to deal with food, how is this work bringing people together, how does it relate to the 'Who Feeds Bristol' suggestions for action, and how are the city powers being used?

Since March 2011, a number of processes have continued in parallel. Bristol's Food Policy Council has been established. Bristol Food Network members have continued to communicate and innovate. A number of different groupings have come together to continue the conversation about how to feed Bristol in the future. Different departments in Bristol City Council have become involved in specific initiatives, mainly around sustainable food procurement, strengthening the relationship between the city and the fruit and vegetable wholesale market, support for the independent retail sector and making land available for increased food production within the city. Developments can be mapped against the 'Who Feeds Bristol' suggestions for action (see Figure 2).

6.1 Food Systems Planning Process

Bristol's new 'Food Policy Council', under the chairmanship of Professor Kevin Morgan from Cardiff University, will help drive change by holding a space for food issues that is separate from solely the City Council or the NHS or indeed any other group. Currently, it is a small group of committed and influential individuals with expertise and local experience relating to food production, preparation, distribution and retail as well as food policy. The aim is to make Bristol a city where eating and celebrating sustainably produced, healthy food becomes something that everyone is proud to be part of. 'Influencing' initiatives to date include dialogue at conferences seminars, and an away day at an organic farm with caterers. A 'Good Food' charter has been developed to communicate the underlying values of a resilient food system as a tool to engage individuals, institutions and organizations. It states: 'As well as being tasty, healthy and affordable the food we eat should be good for nature, good for workers, good for local businesses and good for animal welfare' (http://bristolgoodfood.org/sample-page/).

6.2 Increase Markets for Local Food Producers

Follow-up work is underway to understand in more detail the current catering and food procurement arrangements and the potential food purchasing power of the NHS and the Council. Work is also ongoing, through the council's economic development department work on street markets.

Bristol Food Network, also represented on the Food Policy Council, is strongly motivated to engage Bristol's citizens on a food journey and its members have initiated the following activities:

(a) Safeguard diversity of food retail: 'Bristol Independents Campaign' is a response to the growing concern about the dominance of the multiple retailers and the impact

on local shopping areas, encouraging city residents to use their local shops. The pilot phase in autumn 2011 informed plans for ongoing activity. Bristol Independents Day 4 July 2012 involved over 45 businesses. Following the launch of the Bristol Pound, the two initiatives are collaborating on a 2012 'Christmas Loyalty Card' initiative to encourage increased seasonal spend in independent retailers. The campaign offers a shared identity and brand to independent retailers and is an opportunity to collective promotion of high streets and local shopping areas (www.bristolindependents.co.uk).

- (b) Transform Bristol's food culture: Bristol's 'Get Growing Food Trail' over a summer weekend in June, established in 2011, provides an informal educational opportunity for the public to visit over 30 different community food growing initiatives around the city and see for themselves how food is being grown and used.
- (c) Safeguard land for food: A new alliance (including two-tenant community food enterprises) has been established to campaign for the protection of best-quality agricultural land on the northern outskirts of Bristol. Part of this land has been allocated for Bristol's highly contentious Rapid Transport system and may become 'park and ride'. (This highlights the tensions between planning for a sustainable transport and a resilient food system.)
- (d) Support community food enterprise: A number of organizations around the city are already developing community food enterprises. For example, the Severn Project which provides work for recovering drug users is now managing 12 acres across three different sites and selling produce in the city (http://thesevernproject.org/). There is growing interest to provide more fresh local food items at affordable prices and enable increased local food supply. Exploration of a 'Bristol's Peoples Supermarket' idea has led to a focus on increasing community-run street market stalls.
- (e) Increase urban food production and distribution: A 'Bristol urban agriculture network' is emerging as groups begin to take on land for food production. One of the interests is to coordinate production and marketing and to find ways to make use of 'meanwhile leases' of currently disused city sites. Discussions are underway with the landlords and key stakeholders, led by voluntary sector activists with support from Bristol City Council.
- (f) Redistribute and recycle food waste: A 'Feeding the 5000' event took place in central Bristol in May 2012 organized by FareShare South West and partners. Based on the highly successful and well-publicized event in Trafalgar Square last year the intention was to raise awareness of food waste issues in both an educational and entertaining way that will engage the public. A new pilot initiative is underway with a group of cafes in central Bristol to organize shared food waste collections for composting.

These Bristol Food Network initiatives are led by different individuals and voluntary sector groups, all on shoe-string budgets and dependent on the input of volunteers, but they are bringing a significant number of capable people together to take action on issues they care about and are generating both energy and creativity. The Bristol Food Network website and regular newsletter 'Bristol's local food update' provides a means of coordinated communication to a network of over 900 members (www.bristolfoodnetwork.org). As an organization, Bristol Food Network currently has no funding resources to do any further coordination except for the occasional network meeting (focused on urban food production).

7. Reflections on Challenges for City Food System Reform

7.1 Processes Required Supporting Change

Work to implement change across an entire town or city is inevitably a long-term challenge most especially as the UK government does not require local authorities to contribute to green house gas emission reductions in the food system. Bristol has a target to reduce the city's carbon dioxide by 40% by 2020 from a 2005 baseline, but food is not included. The following processes are ones which are already coming to light in Bristol, since the launch of the 'Who Feeds Bristol' report and the new Food Policy Council in 2011.

- 7.1.1 Coordination. One of the biggest practical challenges is how to enable diverse groups to take their own initiatives and do their own thinking thus contributing to local ownership of city-wide shared vision and strategy whilst at the same time avoiding duplication and the continual reinventing of wheels through a lack of communication and collaboration. The 'Who Feeds Bristol' suggestions for action provide the framework for an ongoing process of development and implementation rather than a finished product in the form of a Bristol urban food strategy. It would appear that this incomplete and open approach, even if it is in fact a default situation, is a positive one. In the case of Bristol, the suggestions for action summary is already proving useful in helping to coordinate and guide various initiatives across the city, each concerned with how to feed Bristol in the future and initiating their own planning processes.
- Supporting the innovators and developing collaborative relationships. voluntary sector-based Bristol Food Network is effectively a collective of individuals and organizations that are determined to go ahead with food system reform in the shape of new initiatives. This is both a strength but also a vulnerability in that there is a constant risk of duplication and lack of communication and competition for increasingly scarce financial resources. While the Council and the NHS help where they can and provide input to various initiatives where possible, they are short of both time and financial resources and don't always share the same perspectives on food system reform. Bristol Food Network has worked hard to forge positive political relationships and to gain respect for its role as independent 'critical friend' to the Council. However its position is delicate, as illustrated recently by a request not to publish certain views in its newsletter, deemed to be in conflict with Council policy – the network newsletter receives some financial support from the Council. A key challenge now in this time of austerity is to find agreed ways to build food system resilience into existing strategies and plans and to establish effective and creative ways of collaboration with both the voluntary and business sectors.
- 7.1.3 Engaging the planning profession. Although there is a 'positive planning powers' section in the 'Who Feeds Bristol' report written by Stephen Hewitt, one of Bristol's own city planners, there is still the challenge of engaging other Bristol City Planners and counterparts in the other West of England local authorities. Until there is recognition of these positive powers and indeed the need for them, it will continue to be very difficult to implement food system change through this route. The next step is to establish open discussion with Bristol city region's planners to explore the significance of food and the

potential for their involvement in 'productive green infrastructure' and food system planning.

7.2 Interventions Required Supporting Change

The 'Who Feeds Bristol' research began with consideration of indicators of resilience in a city's food system and identified the following, each of which requires proactive interventions from a range of stakeholders.

- Staples supplied from the city region
- Availability of 'cook from scratch' ingredients with which to prepare a healthy meal
- · Diversity of food markets and food retail
- 'Closed-loop' systems to reuse and recycle resources
- · Engaged citizens

There is huge potential to engage citizens, influence attitudes and build 'buy-in' through such interventions by working closely with the local community and local businesses in collaborative relationships. Mechanisms such as a local currency may in due course prove to be very effective in underpinning such interventions if they can secure a critical mass of users. The recently launched Bristol Pound, the first city-wide local currency in the UK can be used to pay at Bristol Pound member businesses either with notes, or via SMS text by mobile phone, or over the internet (www.bristolpound.org).

- Sustainable food sourcing and procurement. Following the 2002 Curry report (Report of the Policy Commission on the Future of Farming and Food), the public sector was viewed as the single most effective driver of more sustainable food supply across the UK in support of UK food and farming. In fact, real change has been slow and sporadic, often dependent on significant additional funding and visionary individuals. Bristol is no exception. Over the last decade, there have been a number of initiatives in and around Bristol to try and encourage more sustainable food procurement by both the public and private sectors. The 'Who Feeds Bristol' report highlights the opportunity and looks at the Soil Association's Food for Life Catering Mark as a valuable tool for implementing step change. Nearly three quarters of the city's registered food businesses are caterers. As a city, Bristol has the widest range of caterers in the country signed up to the Catering Mark although collectively this group is not yet procuring significant volumes of food from sustainable sources. The Catering Mark highlights the importance of cooking from scratch with fresh seasonal ingredients, as well as encouraging use of organic and local produce. It is an effective mechanism for enabling work both on engaging citizens and transforming city food culture as well as providing supply opportunities for producers of staple food items in and around the city region.
- 7.2.2 Closed-loop systems and recycling resources. While cities such as Bristol may be making progress on household waste collection including food and recycling, the commercial sector food waste remains very difficult to quantify and much still goes to landfill. There continues to be complex legislation surrounding the composting of food waste and thus an ongoing loss of recycled energy and nutrients. This lack of closed-loop systems is

an underlying vulnerability that needs addressing from both a technical and policy angle at a national level.

- Wholesale and retail. Understanding the role of the declining wholesale sector 7.2.3and the potential impact further decline could have on both the catering and the independent retail sector is another challenge. While the wholesale sector may at times be perceived as dealing with lower quality, focused on cheap imports and subject to less stringent food legislation, this is neither the case nor the whole picture. Bristol's wholesale market serves a very wide area and significant population and in addition to imported produce, also provides market opportunities to smaller scale UK fruit and vegetable producers. Most of the city's greengrocers and caterers depend on the fruit and vegetable wholesale suppliers. The market generates a huge amount of fresh produce waste on a daily basis, much of which is also land-filled. It does not have a relationship with the city despite its city centre location and finding mechanisms to develop stronger links are challenging. There are some excellent ideas: Tim Down, MD of one of the wholesale companies suggests the establishment of a composite market to facilitate more local supply of a wider range of city region staples and the location of a catering college next door to encourage the training of new entrants to working with fresh produce whether as chefs or as traders. This would bring together food-related training, apprenticeships and practical work placements with real-life traders and supply chains.
- 7.2.4 Supporting diverse high streets and local shopping areas. This is a subject that is gaining profile thanks to Mary Portas and is closely linked with the existence of the wholesaler sector. Many of the specialist-independent food retailers buy more locally and are dependent on local supply infrastructure (such as abattoirs and smaller scale dairies) enabling shorter supply chains for food staples such as vegetables, meat and dairy products.
- Safeguarding land for food. Historically many towns and cities were originally built on some of the best agricultural land for exactly the purpose of food supply. Elsewhere in the world, urban and peri-urban food production is key to the food security of towns and cities. This is an area as yet un-explored in the UK, and controversial because of such a diverse set of views around how to address future food security needs. At a national level, there is still an apparent presumption that the UK does not yet need to safeguard land for food. However, there is plenty of research suggesting that even if the motivation is not food security, there are many other advantages and benefits to increasing food production and around cities — social wellbeing, skills and knowledge development, the local environment, economy and green infrastructure. A recent Making Local Food Work report highlights the currently missed opportunity for a greater level of small-scale food production in the fringe of towns and cities as a valuable asset for the resilience of the UK food sector (Michaels et al. 2012). The 'Who Feeds Bristol' report was unable to find any data on the impact on food production capacity and yields through of loss of land — either due to damage such as flooding or drought or due to building developments. When one considers the bigger food planning picture, data of this kind might be useful in influencing decisions about land use. Possibly the use of zoning for safeguarding of land for food production around built-up areas would be a valuable policy tool for the future.

Training, education and food skills development. The level of skills and knowledge needed to support food system reform cannot be underestimated. At a city level, this would require another joined up planning process to look at ways that different stakeholders can provide effective training and practical experience in food-related skills at all points in the food system — from planning through to food waste. There are some excellent food-related education and training initiatives run by the UK voluntary sector and in high demand (e.g. Food for Life Partnership's work on school food culture and meals; Making Local Food Work programme support for community food enterprise; the £50 million Local Food Fund providing finance for smaller scale food initiatives all around England, all related in some way to food education and training). On the other hand many agriculture collages are seeing a decline in take up of courses in food and farming. It may be time to rethink the training approaches on offer and find more integrated ways to shape the food force of tomorrow through linking trainees in with real life entrepreneurs: for example, by locating a fresh produce retail and catering college alongside a wholesale market and providing incentives for more independent food traders to participate in good quality apprenticeship programmes.

8. Conclusions — What Can Be Learnt from the Case of Bristol?

How can Bristol, or any other town or city, develop a more sustainable and resilient food system and how can they engage the right mix of people and skills required to bring about real changes? The types of issues that face Bristol and the actions it needs to take will apply to town and cities in many other countries and are relevant to the work of NGO's and policy-makers all over the world.

8.1 Dynamic and Inclusive Planning Process Versus Finalized Strategy

Each one of the nine suggestions for action in the Who Feeds Bristol report in themselves requires a separate strategy. To achieve this in turn requires expertise, time and financial resources as well as conviction of need and willingness to act. The greatest challenge to ongoing planning and implementation of coordinated positive change is to find ways of involving the right people at the right time. The risk of creating a leadership body, such as a food policy council, is that it potentially has neither the necessary power nor resources and can quickly become disconnected from fast-moving activity on the ground. In a city like Bristol, there are many individuals in the voluntary sector who care deeply about building a more resilient food system and are just getting on with their own initiatives. An ongoing and dynamic planning process is needed to (i) develop appropriate and detailed action plans which address clear objectives and (ii) enable new collaborative relationships between citizens, the voluntary sector, business, key agencies and institutions and city decision makers.

8.2 Encourage Dialogue and Shared Learning

What is happening in Bristol reflects the national picture in which a local food movement has emerged since the early 1990s, largely driven by voluntary sector innovation based on what can be seen as a shared set of values around a vision of sustainability. This vision is founded on care for nature, protection of diversity, concern for community health,

empowerment and inclusion. As noted above, in the case of Bristol local people already lead action on safeguarding diversity of retail or on urban agriculture. Citizens alone, however, cannot achieve the level of systemic change that is now needed. Structured dialogue across towns and cities can help to spread vision and learning; engage new audiences and encourage new innovation. Mechanisms for encouraging genuine dialogue and a willingness to listen to community innovators are needed from city decision makers. Community innovators need political support and collaboration from decision makers and entrepreneurs to fully realize the fruits of their innovations.

8.3 Build on the Innovation of Local Food Movements and Link This with a Well-Informed Food Systems Approach for Specific Localities

In the UK, public funding targeted at NGO and community innovators has resulted in some ground-breaking pioneer initiatives. The move to address sustainable local food systems in the UK grew from the work of a handful of local food pioneers in the late 1990s, of which the Soil Association's 'Food Futures' programme was a significant player. This led to the establishment of more 'local food link' support projects all over the UK. Since then the movement has grown, largely through funding from local authority and NHS at a local level, private grant making bodies and three key Big Lottery programmes over the last 5 years: The Food for Life Partnership (£17 million), Making Local Food Work (£10 million) and the Local Food Fund (£57 million). Despite all this activity, however, the existence and positive collective contribution of this emerging local food movement is still largely unacknowledged at a national level. The multi-functionality of food and our need to create policy silos may be one reason for this — it is easier to focus on buying fresh seasonal local and organic food for healthy school and hospital meals; or to discuss the merits of fresh food markets in improving food access; or to become an advocate of communal food growing as a way of influencing behaviour change. The focus on feeding a world of soon-to-become nine billion is perhaps another reason for discounting a local food movement. But perhaps a new focus on resilient food systems for towns and cities based on up to date facts and figures, will help bring together and build on all the existing innovation and experience providing links between different players and activities within the local food movement that so far are still unconnected. It is an exciting challenge, and arguably one whose time has come.

8.4 Needs Strong Leadership, Advocates, Visionaries, Local Experts and Entrepreneurs

The food we eat in the UK accounts for some 30% of the UK's carbon footprint. WWF-UK and Food & Climate Research Network (2009, 'How low can we go?') suggest that if the UK is to meet its own legally binding target to reduce greenhouse gas emissions by 80% by 2050, then food-related emissions have to be cut by 70% by 2050. The wider implications of developing a more resilient food system for any town or city includes more use of more locally produced food staples; more 'closed loops' within the food system to reduce resource losses; more markets; more cooking from scratch and less intensive food processing; less junk food; less meat; more low-input farms using solar energy. The 'Who Feeds Bristol' report concludes by setting out a clear case for a food systems planning process for Bristol and its city region to build a green economy with food at its heart in a way that

builds a mutually supportive relationship between the city and its hinterland. It is possible that one of the greatest twenty-first century challenges will turn out to be safeguarding high quality land for food production; safeguarding diversity of food retail and keeping our high streets and local shopping areas alive with butchers, bakers, grocers and greengrocers, fishmongers and local produce markets. It may be that part of planning for a resilient food supply system in the future will in due course require us to re-think land use; will include a big shift in our eating and shopping habits back to cooking from scratch with fresh ingredients; providing strong market opportunities for producers in city hinterlands and surrounding regions, who can then afford to change their production. In the case of South West England, for example, this could include raising less livestock but increasing the amount of home grown grass-based feeds and going back to horticulture. Somehow, we need to find a way to do this kind of thinking and planning together as town and city regions — it could be an exciting way to work towards an innovative and viable, genuine green economy. And nothing will happen without strong leadership and the planned involvement of all sorts of people including advocates, visionaries, local experts and entrepreneurs.

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