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Transitioning towards a sustainable food city

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Transitioning towards a sustainable food city

Introduction

The role of universities in contributing to sustainable development is now well documented (Leal Filho, 2012; Shiel *et al*, 2018; Stahlbrand, 2016) with the suggestion that higher education should be addressing sustainability on campus, in the curriculum, across operations, and in the community. Regarding the latter, it is suggested that universities have an important role to play in influencing community stakeholders and working collaboratively to build capacity (Shiel *et al*, 2016). While there are substantial publications related to the educative agenda and campus greening, there are far fewer examples related to capacity building and partnerships for sustainability in the community. This paper aims to contribute further by illustrating how one institution, Bournemouth University (BU), has engaged as a partner in the establishment of the Bournemouth and Poole Sustainable Food City Partnership (BPSFCP) to influence change. Bournemouth and Poole became one of the first of six cities in the UK, funded under the national Sustainable Food Cities Network, in 2013 (Sustainable Food Cities 2018) with BU as a partner.

As the collaboration involves multiple stakeholders, early research initiatives sought to ensure that their perspectives informed the establishment of the Partnership but also the direction of travel. It was apparent from the outset, that while stakeholders had many ideas about sustainable food, there was no single view of what needed to be prioritised; achieving a sustainable food city would be an impossible goal in the constraints of the project but beginning a transition towards sustainable local food was achievable. A participative approach, with the university helping to gather data, was thus vital in the early stages, further, it has also contributed to enabling the Partnership itself to make a transition, ensuring financial sustainability and continuity beyond initial funding.

The literature considers the role of a university in building capacity within the community, sustainable food, and sustainability transitions, including the role of agency. This paper will describe the research approaches that informed the early stages of collaboration: this involved a survey to elicit stakeholders' understanding of sustainable local food, in order to create a shared agenda and inform future strategic direction; and workshops, where paired discussions, and generation of pictorial outputs helped inform the future vision, mission, aims and values of the Partnership. The paper ends with reflections on the nature of the university's role in capacity building. Insights are provided as to the implications and limitations of the Partnership in enabling a transition towards more sustainable consumption.

Literature

It is commonly accepted that universities should address sustainable development through research, education, in their operations and in the community, with an extensive supporting literature (Velazquez *et al*, 2004; Leal Filho, 2010; Sterling *et al*, 2013) that details the breadth of what is involved. In supporting a transition towards sustainable development, many higher education institutions have adopted approaches like the 'Four C' model (Jones

et al, 2010), where Campus, Curriculum, Community and Culture represent areas where sustainability needs to be addressed, preferably as part of a holistic approach.

As early as 1999, capacity building was identified by the Association of University Leaders for a Sustainable Future (USLF) as one of several areas where universities should be engaged in addressing sustainable development (ULSF, 1999 in van Weenen, 2000). Later, Velazquez *et al* (2004) synthesised the suggestions from ULSF into four strategic themes where universities should advance sustainability: education, research, outreach/community and in campus operations. However, while debates about education for sustainable development have occupied the literature, there continues to be a paucity of studies concerning university engagement in building capacity for sustainable development at the local level, or which have involved communities (Leal Filho, 2010).

There has been substantial progress regarding sustainability research, campus greening, and education for sustainable development despite barriers, however it is suggested that capacity building within communities (through external facing projects) has lagged other areas of engagement (Shiel *et al*, 2016). Innovations have been largely in relation to campus greening but lacking elsewhere (Ávila *et al*. 2017). With respect to community engagement, many universities lack a vision for innovation, most have ignored fostering effective relationships with community partners and higher education institutions are missing opportunities to engage with sustainable development fully and in innovative ways (Ávila *et al*, 2017).

Turning now to the literature on sustainable food, it is apparent it lacks a legal definition (Sustain 2019); however, there is recognition that it should reflect economic, environmental, health, and social concerns (Kindling Trust 2019). Within its production, processing, distribution and disposal it should contribute to local economies, protect the diversity of plants and animal welfare, avoid waste and contributing to climate change and provide social benefits such as healthy products and educational opportunities. (Sustain 2019). This will include embracing short supply chains.

One of many areas where universities can build capacity at a local level is in relation to sustainable food. Food and drink are essential for life and directly impact on health and well-being (Whatmore, 2002); food consumption and production are important for sustainable development. However, food distribution across the world is uneven: not everyone enjoys sufficient food, let alone sustainable healthy food and there are several anomalies. In the UK, for example, obesity has become a public concern, while demand for food banks and food poverty has increased (Loopstra & Lalor, 2017). In the Global South, while some countries are affluent and produce plenty, continued food crises in others, mean that many starve (Oxfam, 2018). Further, given climate change, there is greater awareness that the production and consumption of food has shifted in the last 20 years to become the single human activity with the most significant impact on the environment (Smil, 2000). The number of food scares has risen since the turn of the century (Knowles *et al*, 2007) and there is controversy in relation to food additives, chemicals used in food production, genetic engineering and organic growing (Lockie, 2006), with many of the issues featured and exacerbated by the media. In this context, research on food (food security, food poverty, food production) has expanded

over the last decade, in parallel calls have increased to encourage the development of sustainable food systems that ensure food is sustainably produced, food waste reduced, and the effects of an increasing population on the planet minimised (Defra, 2013; Lorenz & Veenhoff, 2013; Lubin & Esty, 2010). Earlier, Aiking and de Boer (2004) attempted to summarise some of the issues, suggesting that the topic of food sustainability is complex, involving many aspects and diverging interpretations. In brief, they identified a need for change, and greater transparency in governance.

The call for change has also been writ large and taken forward at the global policy context, where it is impossible to ignore that millions are undernourished (Food and Agriculture Organization of the United Nations. 2014) and where solutions to eradicate hunger and achieve food security are seriously compounded by climate change, population growth, migration and rapid urbanisation (UN, 2016). Globally, the central concern of eliminating food poverty, ensuring food security and access to nutritious food is now a critical aspect of the Sustainable Development Goals (SDG), articulated in SDG Goal 2 which aims to "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" through sustainable solutions including sustainable food production systems (UN, 2016). All signatories to the SDG Accord will work towards achieving the SDGs but, each SDG will require actions at the local level if the overarching ambition is to be achieved.

Despite the ambitious SDG goals, it should be recognised that the barriers to creating local sustainable food solutions are significant. These include: powerful food retailers controlling producers, stifling the opportunity for change; lack of funding with future uncertainties; those from lower socio-economic backgrounds lack knowledge and have limited resources with which to buy seasonal, healthy food and universities and schools typically are straight-jacketed with their curriculums, preventing the opportunity to focus on wider world issues such as climate change and sustainable healthy food choices (University of Strathclyde 2017).

Nonetheless in relation to food, a sustainable food and drink system needs to balance economic, social and environmental goals, deliver social benefits at the local level, while also protecting an increasingly fragile environment (Marsden & Morley, 2014). A transition towards local food solutions is a worthy consideration, and when replicated across communities, can potentially impact social, economic and environmental change. Local food systems are defined as "a method of food production and distribution that is geographically localized, rather than national and/or international" (Grace Communications Foundation, 2018). Along with locally sourced, locally produced, and organic food networks they have received interest as potential models of sustainable consumption (Watts *et al*, 2005) and may be the way forward.

This case study contributes to the knowledge of the early stages of sustainability transitions with a local food system. Sustainability transitions are fundamental long-term shifts within an established socio-technical system that encompass changes in markets and cultural discourses when moving to more sustainable means of production and consumption (Geels *et al*, 2008; Markard *et al*, 2012). These transitions embrace policy shifts within the governing

institutions (Geels *et al,* 2008) and can affect regimes, for example the established methods of food procurement and consumption resulting in behaviour change from the actors involved (Spaargaren *et al,* 2012). Socio-technical systems can include housing, healthcare, water supply, transportation and food and agriculture (Coenen *et al,* 2012) and the latter sector, specifically food systems is of interest here.

The literature identifies that there are multi-actor partnerships within the sustainable arena (e.g. Oldenhuizing *et al,* 2013) with Mader *et al,* (2013) identifying ways that higher education shares knowledge with regional actors. Typically, these include farmers, food industry employers and employees, retailers, consumers and regulating authorities (Spaargaren *et al,* 2012). The actors involved in this case study include BU, the Partnership manager, local authorities and members of the BPSFCP. Transitions can result in different relationships and organisation amongst actors within the food system, because of new arguments and technologies to underpin new food practices, which in turn affect consumer behaviour (ibid). Therefore, actors and their agency are of interest, particularly their involvement devising the Partnership's strategic direction. Human agency is defined as the capacity of an individual to create meaning though considered thought, reflection and action from their environment (Houston, 2010). Stahlbrand (2016) argues that agency can proactively promote regime change rather than adopting a supporting role and calls for further research here. Moreover, Markard *et al, (*2012) identify the need for further in-depth studies regarding strategic development, including the creation of new regime structures, involving the strategic interactions amongst networks of actors viewed through a management studies lens.

In summary, the analysis of the literature calls for further understanding as to how universities can build capacity for food sustainability within a local community, building effective relationships with local community stakeholders. Specifically, this paper investigates the strategic development that contributes towards a sustainable transition. Additional reflections are offered in regard to actors and their agency, specifically those from the university and local government who influence the current regime of food procurement and consumption, and local governance policy.

Insight into these agendas is gleaned from a university's involvement with the strategic development of a sustainable food system. The research aim was to build capacity for food sustainability within a local community through creating effective relationships with local community stakeholders. Deploying a transparent and inclusive process involving a variety of actors, the research objectives were to:

RO1. To assess the current understanding of sustainable food and its context.

RO2. To create a shared agenda for future development.

R03. To inform future strategic direction.

RO4. To determine the Partnership vision, mission, aims and values

Method

This paper adopts a case study approach (Yin, 2014) and represents an empirical inquiry into sustainable development progress within the BPSFCP. In developing the case study, the authors, who are participants in the Partnership, have engaged in a process of participative inquiry and practice (Reason & Bradbury, 2001). The paper represents an output from collaboration between university researchers and a practitioner (the Partnership manager). The case study includes two sub-strands of research undertaken by the Partnership. Rather than detail the method/s used in each phase here, the multi-methods adopted at each stage are explained further after the case study context is provided.

The case study context: developing the BPSFCP

BU is a UK, medium-sized, post 1992 university, with approximately 19000 students. The university is on the South Coast of England, on the boundary between the adjacent towns of Bournemouth and Poole. Engagement with the concepts of global citizenship and sustainable development began in 2005 and became a strategic concern from 2006, with the aim of adopting a holistic approach (Shiel, 2007). Sustainable development is incorporated into university strategy and policies, featured within research and the curriculum, and is central to campus operations. Developments have progressed in a similar approach to the 'Four C' model' (Jones, 2010) but have not always been successful in securing an integrative approach; the 'community' element has been somewhat ad-hoc and un-evaluated. Nevertheless, BU has made substantial progress (see Shiel *et al*, 2018) and has a reputation for being one of the UK leaders regarding the sustainable development agenda. As part of the external facing agenda, BU became a supporter in partnership with community stakeholders in submitting a successful bid to develop as a Sustainable Food City.

The national sustainable cities' programme recognised the key role of communities in contributing to sustainable development by transforming food culture and food systems. At the national level sustainability was described as the direction of travel rather than a specific destination and although they were not prescriptive, they suggested six key areas to consider at a local partnership level:

1. Promoting healthy and sustainable food to the public

2. Tackling food poverty, diet-related ill health and access to affordable healthy food

3. Building community food knowledge, skills, resources and projects

4. Promoting a vibrant and diverse sustainable UK food economy

5. Transforming catering and food procurement

6. Reducing waste and the ecological footprint of the UK food system

The BPSFCP sought to establish itself with these aims. The Partnership comprises "local people, businesses, community groups and public-sector organisations who have come together to revolutionise the way people across the region grow, buy, cook, eat, celebrate and

dispose of their food" (Bournemouth and Poole Sustainable Food City, 2018). The university's role incudes Board membership contributing knowledge including sustainability and strategic planning, together with sitting on other council committees such as Fair-Trade town, a steering group established to support Fair Trade locally. The Partnership manager is an experienced practitioner having worked with multifaceted sustainable development organisations locally and as a short supply chains expert across the EU. Other Partnership members include food security and food poverty practitioners, skills and learning advocates, local business owners, restaurateurs, hotel managers, community garden organisers as well as residents. The Partnership's structure consists of a Board, including two university academics, representatives from both local authorities, Public Health, Transition Towns, local charities and leaders of smaller food projects. There are 450 members within the total Partnership.

Research Initiatives

In collaboration with university stakeholders, the Partnership embarked on two research initiatives, to provide a platform for subsequent activity and future direction. In line with Walker *et al,* (2004) the objectives, or purpose, and methods are explained facilitating replication for future studies. The first initiative commenced in October 2014 with objectives to assess the current understanding of sustainable local food and create a shared agenda among Partnership members, to quickly inform future direction rather than a more sophisticated approach. A survey method was employed, using rating scales, and open-ended questions which were thematically analysed. 34 members of the burgeoning Partnership responded to a Partnership newsletter request for survey respondents (7.5% response rate). They completed a written survey returning this directly to the Partnership Manager. They reported directly on their understanding of the term 'sustainable food', awareness of other sustainable food schemes, current awareness of sustainable food in the local area, frequency of purchase of local food items, and priorities and key issues around sustainable food. This was a small but representative sample, as respondents were typical sustainable food consumers. Appendix One provides a summary of the questions. Open ended questions' responses were coded using a separate spreadsheet using emergent coding; the sequence in which the comments were spontaneously mentioned was considered.

Thematic analysis revealed that respondents reported that "sustainable food" was predominantly connected with "local" contrasting with research asserting that sustainable food does not have to be local and local food may not be, in all instances, sustainable (Grace Communications Foundation 2018). Other associations frequently mentioned, were environmental protection including responsibly sourced and sustainable fishing. Less frequent associations included organic, health, community, food poverty, Fairtrade, no pesticides, effective use of resources, food security, seasonality, supply chains, ability to grow, future perspective, price/cost and ethical issues.

Respondents were aware of national and international schemes rather than any local initiatives. While all the respondents had heard of Fairtrade, only 74% were aware of the Rainforest Alliance with 65% being conscious of the Marine Stewardship Council. Despite

their interest in local food, local initiatives had lower awareness; Dorset Local Food and Drink (59%), Real Local Flavour (41%) and Hampshire Fayre (18%) (see Table One).

Table One: Scheme Awareness

Respondents reported that the most frequently purchased local food and drink products were locally sourced vegetables and Fairtrade products followed by locally sourced fruit, locally sourced dairy products locally sourced meat, bread from a local bakery and finally locally sourced drinks (see Table Two). Despite the respondents' engagement with locally sourced produce, they tended to disagree that food in Bournemouth and Poole is sustainable, people in the area are aware of the need for sustainable food or that it is easy to find sustainable food in the local area (see Table Three).

Table Two: Frequency purchase data for local food items

Table Three: Sustainable food responses

To help inform the Partnership's future direction, respondents were asked about the key issues and priorities around the sustainable food agenda. The thematic analysis revealed that they again focused on local. Education emerged as an important issue, including the need to raise awareness and provide information where to find sustainable food. Other notable issues included the environment, sourcing, including sustainable fishing, supply chains, availability, price and affordability. Mentioned less frequently were concerns related to animal welfare, health, the ability to grow food, having sufficient resources, equality including fair access to sustainable food for everyone, food poverty and food waste.

Respondents ranked a set of possible priorities of the Partnership on a 10- point scale (1 = most important; 10 = least important (see Table Four). Top priorities are campaigning to increase understanding of sustainable food within the community, and minimising food waste and using food surplus more effectively. The campaigning aspect aligns with the earlier requirement to educate. Then a more supply-driven focus is apparent with supporting local food producers, increasing sustainable food sourcing in business, and supporting sustainable food businesses. Community growing followed tackling food poverty, increasing sustainable food sourcing in the public sector, teaching cookery and other food skills, and finally, improving individual health and well-being.

Table Four: Priorities responses

When respondents gave their opinions in response to an open-ended question as to the Partnership's focus for the next 3-5 years, education emerged as the predominant issue. The thematic analysis revealed that other focus areas included community growing, food poverty, food waste and local. The involvement of local government was raised for the first time, followed by issues around sourcing, availability, accessibility, supply chains/distribution and the need for appropriate business and marketing solutions. Respondents opined about what was required to support the longer-term vision (ten years) to be a sustainable food city. Education was highlighted again, together with business marketing solutions and business support. There was a need to change perceptions and attitudes toward sustainable food,

reflected in the theme 'seismic shift'. Respondent quotes evidencing this included "a fundamental change in attitudes and awareness", "a change of culture through education and awareness" and "a miracle". Managing sourcing and availability issues, local government involvement as well as funding, were deemed important along with efficiencies in the food distribution system. Finally, community growing, local and addressing food poverty were considered important in becoming a sustainable food city.

Many of these findings reflect those of Marsden & Morley (2014) noting a need to balance social, economic, and environmental goals for a sustainable food system. Moreover, the theme 'seismic shift' was identified to change attitudes and behaviour, which underpins the nature of a sustainability transition. These findings recognised the requirement to support local producers and businesses and to involve local government. However, these were early days in seeking to influence the latter albeit Board representatives of both councils were privy to these research findings. The Partnership was commencing many of their initiatives and it was too early to evaluate their effects against the current regime of local food procurement and consumption practices.

The first initiative was mainly led by university staff and provided a better understanding of participants' conceptions of sustainable food plus a foundation for future project direction. However, in October 2015 it also became apparent that without a focus on the Partnership's strategic development, given the finite funding and resources available, that the Partnership would not survive. It needed to become independent of both councils and financially sustainable.

The second initiative took place in November 2015 and its objectives were to inform future strategic direction and articulate a vision, mission, aims and values for the Partnership. Whilst BU was instrumental in the survey design for the first initiative, on this occasion the Partnership manager led the activities, with the academics adopting a more supportive role. Specifically, this entailed two workshop sessions, during November 2015, involving paired discussions followed by the production of pictorial outputs in slightly larger groups. A second workshop with eight participants took place at the end of January 2016, completing the data collection.

Partnership members were invited through email and the website to participate in two workshops to help determine the future vision of the Partnership. These sessions took place in a local community centre, with 43 participants on 3rd November 2015. Five of the 19 previously surveyed members, expressing interest in inclusion for future research, attended the workshops. Initially respondents were asked to work in pairs with one group of three to identify what was working well and what could be improved. The answers were analysed using a simple SWOT analysis which helped identify initiatives with which the respondents were familiar. The results from all these discussions revealed the Partnership's progress to date.

Strengths revealed that professional and community groups and organisations networked well together showing good private and public-sector involvement in a shared agenda. Good

project management, relevant experience and knowledge evident with links created with education providers (e.g. primary schools, Poole Grammar School). Fairtrade town status is already achieved. Awareness of the Partnership and sustainability issues is increasing amongst the public and within organisations, however generally awareness levels are low. There is a need to increase awareness of successes (e.g. online Food Assembly [1], community gardens [2], Sustainable Fish City [3], Zero Waste Kitchen Challenge [4]) with both the public and potential new funders; a bigger membership is required with bigger players (e.g. local firms). Promotion and availability of affordable local food needs to increase in the area. Public education is required regarding local food production and sourcing, healthy eating, cooking and food waste. Focus is required on fewer projects given restricted resources and impact can be measured.

There are future opportunities such working with Food Banks and roof-top gardening however there are significant threats including the abundance of cheap, unnatural and fast foods with an associated unhealthy culture. Little attention is paid to the environmental impact of conventional food production and food miles. There is little infrastructure available for sustainable food and production of economically viable sustainable food is challenging. There is no agenda from government for sustainable food production/consumption and farming subsidy systems are perverse.

Following the paired discussions, a pictorial analysis took place where respondents were put into larger groups asked to draw their vision of how they would like to see Bournemouth and Poole in the future as if it was a sustainable city. An example of one picture is shown in Figure One.

Figure One: Visioning Picture

In total nine pictures were created, and a synthesis took place of the data including words and visuals. These were grouped into themes which formed the basis for vision and mission development. These themes were visionary and contributed to a series of aims. Some 29 separate references were attributable to producing sustainable food, contributing to the theme “wherever I look, food is growing”. This subsequently underpinned an aim to achieve “a city where food is grown and reared in public and private spaces by individuals, community groups and enterprises”.

25 references contributed to the theme "I can always find an affordable, sustainable food option" which underpinned an aim “a city where food is bought, traded and sold through community enterprise and businesses using independent, new and traditional market places and spaces”. 14 references contributed to the theme “everyone understands the impact of their food choices on themselves and the planet around me, by growing and cooking their own food with little or no waste”. This led to the aim to achieve “a city where everyone has food skills and knowledge, feels confident in their food choices, understands sustainable food issues and can access”. 10 references were assigned to a local government theme "planning and regulatory services are supporting me and my community to grow and food businesses to flourish, and my local school and hospital have a predominantly sustainable food offering".

This evolved into an aim “a city where governing bodies understand the holistic benefit of a sustainable food system, regulate to support its growth and commit to procure sustainable food whenever possible”.

The references became fewer but those relating to the environment were captured by the aim “a city where residents, especially children, and visitors enjoy sustainable food, surrounded by a verdant and bio-diverse environment”. Some four references revolved around sustainable fish expressed by “being a Sustainable Fish City means I can enjoy eating fish" underpinning the aim “a city where all the fish served is sustainably sourced and local fish is readily available”. A final theme concerned composting and together with earlier research mentions of food waste, reflected the sentiment "I never throw food away". This evolved into an aim to have “a city where businesses and communities minimize their food waste and compost anything left”. An important theme brought forward from the first research initiative was food poverty, so a corresponding aim was created: “A city where everyone, no matter their situation can readily access sustainable, nutritious food and where food poverty has been eradicated.”

Whilst these aims are aspirational, they support the vision. These were then synthesised into one vision statement which reflected Parikh and Neubauer’s (1993) definition which is to create a more inward-looking image of the organisation’s desired future. It is ‘to grow a flourishing city region where good food and better food choices lie at the heart of every community”. Correspondingly, the mission is more purposeful, determining the nature of the organisation’s business and why it exists (ibid). The Partnership’s mission was therefore to connect, support and enable our food community, helping to grow a thriving food sector and cultivate nourished neighborhoods.

To support the vision, mission and aims, the Partnership developed a set of values to reflect its ethical stance, principles and standards of behaviour. A workshop with eight participants from the Partnership took place early January 2016. The group were introduced to the purpose of values as a list of key beliefs that would guide the Partnership’s operations and help others understand what it stood for. A list of 76 different potential values were presented, with three further ones added by the group themselves. Each individual selected the eight values they felt most represented the beliefs of the organisation to them, and then undertook the process of ranking these in order of importance. These values and their rankings were then combined and analysed to identify the most frequently cited and highest ranked, to provide the Partnership’s values. This generated the following values with the groups’ qualitative justification for each being captured.

Unity: We strive to connect and unite all our communities together around a shared belief in the value of good healthy food.

Stewardship: We care for, value and preserve spaces for growing, cooking and eating food, food knowledge and culture with honesty and integrity.

Resilience: We work to create resilience across the food sector, building food security whilst remaining a dependable, sustainable Partnership.

Nourishment: We know that food nourishes the mind and soul as well as the body, so we strive to be creative, original and flexible in all that we do to provide real nourishment to all those who work for and with us.

Commitment: We are fundamentally committed to creating a vibrant, socially just and inclusive food sector.

Reflections

These reflections reflect a notion of challenge (Walker *et al*, 2004) in that viewpoints are shared with others with recognition of further issues to be addressed. Members of the university were involved in both research initiatives, contributing to capacity building. The following reflections consider the nature of this capacity building, the role of university actors working towards creating the transition, the local government actors, and finally the promotion or alteration of current regimes of food procurement and consumption.

This case study illustrates that capacity building involves working collaboratively with partners (Shiel *et al*, 2016), in this case the BPSFCP, where capacity building in the community involves building relationships and sharing knowledge with other community stakeholders. These included Board members, who represent both local authorities, local charities, and leaders of smaller food projects. The university has been a member of the Board since the Partnership's inception and has played an important continuity role as the membership has been shifting and dynamic, exemplified by three Chairs (in a short period) with a variety of experiences.

Capacity building is demonstrated by an external entity (i.e. the university) assisting an institution (i.e. the Partnership) to continuously improve its processes (Brown *et al*, 2001). University members have helped to inform strategic direction, vision, mission, aims and values. This evolving clarity has provided a base for many successful and innovative projects, helping the region to begin a transition towards a sustainable food city. However, those academic staff who have led and supported developments did so in a volunteer capacity. This requires substantial goodwill and time. Academic staff who engage in capacity building need to be highly committed and resilient to make progress when other stakeholders may be less committed and less used to working in a strategic way. University actors have contributed towards capacity building by specifically focusing on a theme of education around sustainable food. This involved creating a working group to develop regional, national and international links to exchange information, to further research opportunities, to embrace innovation and to disseminate good practice. Human agency from this group was more discernable in comparison to those actors leading other themes within the Partnership such as commercial support and carbon reduction. This was evident from conferences attended, reciprocal visits from other sustainable cities, liaison with DEFRA around becoming a European Innovation Partnership operational group, exploring knowledge transfer partnerships with the university working with the university and disseminating case study information around successful initiatives.

Other projects involved university students such as Waste Less, Save More [5]. Student interns helped deliver the Good Food Accreditation scheme [6] increasing awareness amongst businesses and the public. These projects helped build capacity as they help to provide evidence and build competencies (Spoth *et al*, 2004) around workable sustainable food solutions. The Partnership spear-headed several live briefs for students, enhancing the curriculum, benefiting learning around local sustainable issues and subsequently generating some creative ideas and solutions. Student internships supporting the Partnership manager, provided work experience, supporting the assertion by Schmitz *et al*, (2010) that community projects provide an ideal environment for student learning.

There are, however, human and financial resource constraints on the ability to build future capacity. There have been many successful bids enabling small projects to be implemented. However, larger funding opportunities remain elusive. These can require investment upfront such as investing in securing planning permission for a roof community and garden project. This is required by a larger funder before they would commit, and the Partnership lacks the available funds.

To what extent does capacity building result in transitions? The case study reveals that while BU actors have supported a transition of the Partnership itself, there is more to do to transition towards a sustainable food city. A transition is a structural change and new modes of production and consumption result, with an accompanying set of behaviour changes from the actors involved (Spaargaren and Oosterveer, 2012). Whilst there may be some promising transitionary projects such as the online Food Assembly, the findings show it must gain more traction amongst a wider audience. The first research initiative identified the need for a 'seismic shift' required to change attitudes and behaviours, with the second initiative continuing to highlight the need for wider public education regarding local food production and sourcing, healthy eating, cooking and food waste. Whilst there has been some focused and cost- effective initiatives implemented, the Partnership lacks the necessary financial resources with which to raise awareness and educate a wider audience. Further, lack of initial funding meant that a baseline for measuring a transition was never established. Capacity building and transitions require evaluation with robust measures; these are often missing from one-off projects; without a baseline measuring success is problematic (Shiel *et al*, 2016).

In relation to a transition of this nature, local councils have considerable influence. Within the BPSFCP they have played a largely supportive rather than a proactive role. They provided some initial funding at the outset and Bournemouth Council provided accommodation and support for the Partnership manager but then struggled to determine which department aligned best with the Partnership, resulting in departmental moves, from Economic Development and Sustainability to Housing Enforcement and Communities. This reflected the level of understanding within departments of sustainability (and sometimes a lack of understanding) and how it impacts on their work portfolios. Bournemouth Council has yet to align all of its council practices with the goal of sustainability, creating occasions of internal conflict. This limited the Partnership's ability to influence local government policy albeit that some shifts have occurred, exemplified by the Partnership's Sugar Smart campaign leading to a potential Council policy declaration on reducing sugar. To improve traction within

Councils, it would be ideal if there were an individual 'champion' or 'ambassador' in a key position, with a clear understanding of sustainability and sustainable food.

The Partnership has been proactively trying to influence regime change, rather than adopting a supporting role (Stahlbrand, 2016). The research has captured a shared stakeholder understanding of sustainable food and its context to develop strategy. Research findings informed aims and vision; however, these have remained aspirational despite the promising progress of the Partnership. Key to success is the implementation of a mission, which serves to connect, support and enable the food community, helping to grow a thriving food sector and cultivate nourished neighborhoods. To achieve this, solutions need to be found to overcome weaknesses identified in the SWOT, to increase awareness of successful projects and to build and extend membership within the community. This can be assisted by wider public education regarding accessing local food, healthy eating, cooking, and food waste. The Partnership's desire to proactively promote and alter the current methods of food distribution and consumption are evident; nonetheless, they lack the resources required to do so.

There are some pockets signaling regime change. The online Food Assembly directly challenges conventional ways of food procurement and consumption albeit it lacks scale to mount any serious challenges against current practice. The key challenge it faces is that consumers are reluctant to change their behaviour regarding collection of their online order, preferring direct delivery, creating further logistical challenges for the Partnership.

Regime change has taken place within the Partnership itself. It has moved from being funded initially by an initial combination of start-up grants, to being self-financing. Grant applications have benefitted from the additional clarity of the Partnership's strategic direction. The Partnership manager has secured additional funding from Sustain, Sainsburys, the Postcode Lottery and the Big Lottery, helping to sustain the Partnership itself.

Conclusions, Limitations and Implications for further research.

This study contributes to a body of knowledge regarding strategic development as called for by Markard *et al*, (2012). The Partnership has established promising foundations and fostered a genuine attempt for change, although this may be more incremental, given the resources available.

BU has built capacity for the BPSFCP through this research project and ongoing commitment involving fostering effective relationships with community partners. It has helped the Partnership establish strategic direction which in turn, has guided innovative projects that produce evidence and build competencies around sustainable food solutions. Grant applications have benefitted from inclusion of this clear vision, mission, aims and values, enabling the funding of further capacity building projects.

Running such a community project is challenging. There are limitations to the availability of human and financial resources preventing further opportunities to build capacity. Critically, wider public education would increase awareness and the membership. Greater education and knowledge support the Partnership's mission, which is to connect, support and enable the

food community, helping to grow a thriving food sector and cultivate nourished neighborhoods.

Whilst there are promising projects that sow seeds of behaviour change, it is early days. The Partnership struggles to establish its own socio-technical system underpinning any fundamental long-term shift, typifying a sustainable transition (Geels *et al*, 2008; Markard *et al*, 2012). The Partnership has limited influence with the local council policy. Local government remains in a supportive capacity, needing to determine where sustainability fits within its own strategy. Consequently, agendas occasionally conflict, although frequent communications between parties allow the ability to move forward with some behaviour change from the actors involved (Spaargaren *et al*, 2012). Transition takes time and local government structures move slowly; regime shift in the short term is ambitious.

The research method used was a descriptive case study method which has limitations but learning from such studies is important for wider transformation for sustainable development (Sharp 2002) and enables others to consider possibilities and challenges (Shiel et al. 2019). Research reflections have focused on two specific groups of actors, namely those from the university and local government. Future research can include a broader range of actors.

The case study demonstrates that while progress can be made in terms of a journey towards sustainable food at a local level, further research is necessary to identify the multiplicity of factors that facilitate and inhibit progress. Further case studies that demonstrate how capacity building in the community leads to successful sustainable transitions would be helpful particularly case studies which deploy robust measures for evaluation. Although case studies of this nature are not replicable, some of the methods, findings and implications resulting from this case study can inform other similar contexts. Finally, the case study documents the beginnings of a transition; subsequent research activity exploring broader human agency influences on local food procurement and consumption needs to contribute to Tilbury's (2011) call for longitudinal research.

Footnotes

[1] Online Food Assembly: a new market outlet bringing producers and consumers together through an online ordering system and shared weekly pick-ups to improve access to locally produced food. The Bournemouth Assembly has 937 consumers.

[2] Community gardens: the purpose is to build social inclusion and increased the nutritional value of participants' diets. Gardeners' skills are developed, knowledge shared, and new gardens established in key areas of deprivation.

[3] Sustainable Fish City: the region is the first Sustainable Fish City in the world. It encourages public sector organisations, schools, offices and local businesses to commit to only sourcing fish approved as sustainable. Over 3.6 million fish meals a year in the region use sustainably sourced fish.

[4] Zero Waste Kitchen Challenge: worked with 52 BU student households to reduce their food waste. Through one to one support, food waste kitchen gadgets and a series of cookery workshops students reduced their food waste by 48% and are disseminating their new food skills into the community.

[5] Waste Less, Save More: a community-wide campaign to minimise food waste and enable food surplus distribution. Includes Community Fridges, Cookery Workshops and Feed the 1,000 events.

[6] Good Food Accreditation scheme: assesses and ranks business across 5 areas of sustainability – local sourcing, sustainable sourcing, food waste minimisation, work with communities and communication. Includes support to improve and promotion through website profiles and merchandise.

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Answer Choices	Responses/no. of respondents
Dorset Food and Drink	58.82% 20
Hampshire Fair	17.65% 6
Real Local Flavour	41.18% 14
Fairtrade	100.00% 34
Marine Stewardship Council	64.71% 22
Rainforest Alliance	73.53% 25
Food Alliance	35.29% 12

Total respondents: 34

	Never	Once a month	Once a fortnight	Once a week	Daily	Don't know	Total	Weighted Average
Locally sourced vegetables	9.09% 3	18.18% 6	15.15% 5	33.33% 11	9.09% 3	15.15% 5	33	3.61
Locally sourced meat	27.27% 9	30.30% 10	15.15% 5	9.09% 3	0.00% 0	18.18% 6	33	2.79
Locally sourced dairy products	28.13% 9	25.00% 8	15.63% 5	15.63% 5	0.00% 0	15.63% 5	32	2.81
Locally sourced fruit	18.18% 6	21.21% 7	27.27% 9	21.21% 7	3.03% 1	9.09% 3	33	2.97
Locally sourced drinks	27.27% 9	36.36% 12	18.18% 6	3.03% 1	0.00% 0	15.15% 5	33	2.58
Bread from a local bakery	18.18% 6	39.39% 13	12.12% 4	21.21% 7	3.03% 1	6.06% 2	33	2.70
Fairtrade products	3.03% 1	18.18% 6	15.15% 5	51.52% 17	9.09% 3	3.03% 1	33	3.55

	1 –	2 –	3 –	4 –	5 –	6 –	7 –	Total	Weighted Average
The food in Bournemouth & Poole is sustainable	11.76% 4	20.59% 7	20.59% 7	20.59% 7	11.76% 4	11.76% 4	2.94% 1	34	3.47
People in Bournemouth & Poole are aware of the need for sustainable food	5.88% 2	32.35% 11	20.59% 7	23.53% 8	2.94% 1	8.82% 3	5.88% 2	34	3.35
It is easy to find sustainable food in Bournemouth & Poole	5.88% 2	26.47% 9	29.41% 10	14.71% 5	11.76% 4	11.76% 4	0.00% 0	34	3.35

	1	2	3	4	5	6	7	8	9	10	Total	Score
Community growing	5.88% 2	14.71% 5	5.88% 2	11.76% 4	11.76% 4	5.88% 2	11.76% 4	14.71% 5	8.82% 3	8.82% 3	34	5.38
Teaching cookery and other food skills	2.94% 1	5.88% 2	8.82% 3	5.88% 2	2.94% 1	14.71% 5	17.65% 6	14.71% 5	17.65% 6	8.82% 3	34	4.44
Increasing sustainable food sourcing in businesses	11.76% 4	5.88% 2	8.82% 3	23.53% 8	8.82% 3	11.76% 4	5.88% 2	2.94% 1	14.71% 5	5.88% 2	34	5.85
Increasing sustainable food sourcing in the public sector	2.94% 1	0.00% 0	8.82% 3	11.76% 4	23.53% 8	14.71% 5	8.82% 3	11.76% 4	8.82% 3	8.82% 3	34	4.94
Supporting sustainable food businesses	5.88% 2	11.76% 4	17.65% 6	5.88% 2	11.76% 4	8.82% 3	17.65% 6	14.71% 5	0.00% 0	5.88% 2	34	5.82
Minimising waste and using food surplus more effectively	26.47% 9	11.76% 4	14.71% 5	5.88% 2	17.65% 6	2.94% 1	5.88% 2	8.82% 3	5.88% 2	0.00% 0	34	7.12
Campaigning to increase understanding of sustainable food within the community	29.41% 10	14.71% 5	5.88% 2	8.82% 3	11.76% 4	8.82% 3	11.76% 4	0.00% 0	5.88% 2	2.94% 1	34	7.12
Improving individual health and well-being	0.00% 0	5.88% 2	5.88% 2	5.88% 2	0.00% 0	0.00% 0	2.94% 1	20.59% 7	23.53% 8	35.29% 12	34	2.97
Tackling food poverty	11.76% 4	11.76% 4	5.88% 2	8.82% 3	0.00% 0	17.65% 6	8.82% 3	8.82% 3	5.88% 2	20.59% 7	34	5.15
Supporting local food producers	2.94% 1	17.65% 6	17.65% 6	11.76% 4	11.76% 4	14.71% 5	8.82% 3	2.94% 1	8.82% 3	2.94% 1	34	6.21

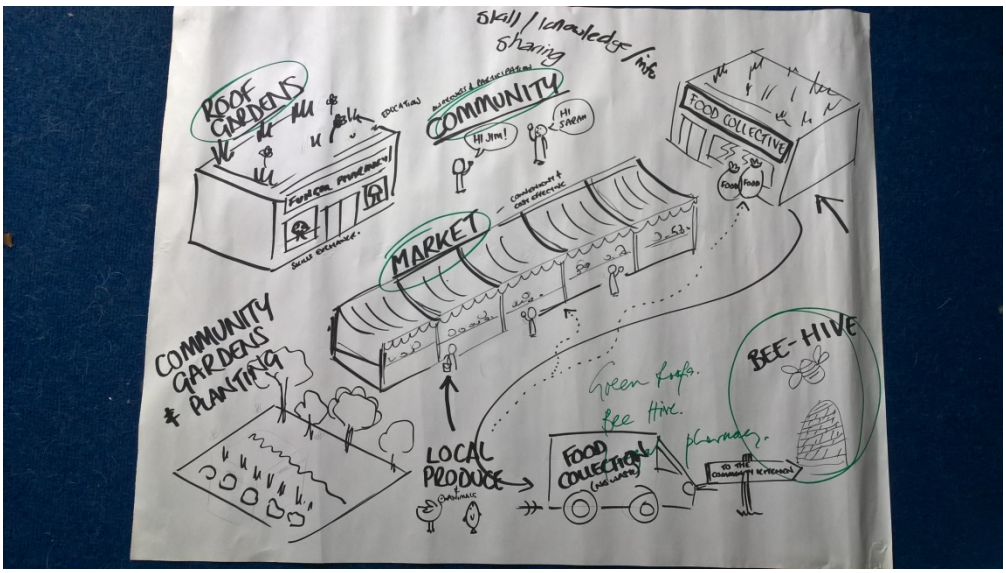

Figure One: Visioning Picture

Appendix One

Summary of questions from the Bournemouth & Poole Sustainable Food City Partnership Questionnaire

The survey was conducted between 7 and 21 October and achieved 34 responses – a 7.5% response rate. This contains a selection of the questions asked and additional tables of data.

Please list the three main things that come to mind when you hear the term 'sustainable food'.

Which of the following sustainable food brands/logos have you heard of? Please tick all that apply.

Answer Choices
Dorset Food and Drink
Hampshire Fair
Real Local Flavour
Fairtrade
Marine Stewardship Council
Rainforest Alliance
Food Alliance

How frequently do you buy the following?

	Never	Once a month	Once a fortnight	Once a week	Daily	Don't know
Locally sourced vegetables						
Locally sourced meat						
Locally sourced dairy products						
Locally sourced fruit						
Locally sourced drinks						
Bread from a local bakery						
Fairtrade products						

Please indicate the extent to which you agree with each of the following statements on a 7-point scale, where 1 equals strongly disagree and 7 equals strongly agree.

	1 –	2 –	3 –	4 –	5 –	6 –	7 –
The food in Bournemouth & Poole is sustainable							
People in Bournemouth & Poole are aware of the need for sustainable food							
It is easy to find sustainable food in Bournemouth & Poole							

What three issues around sustainable food are most important to you? Please rank the issues in order of importance, where 1 is most important and 3 is least important.

What do you think the priorities of the Bournemouth & Poole Sustainable Food City Partnership should be? Please rank the following where 1 is most important and 10 is least important.

	1	2	3	4	5	6	7	8	9	10
Community growing										
Teaching cookery and other food skills										
Increasing sustainable food sourcing in businesses										
Increasing sustainable food sourcing in the public sector										
Supporting sustainable food businesses										
Minimising waste and using food surplus more effectively										
Campaigning to increase understanding of sustainable food within the community										
Improving individual health and well-being										
Tackling food poverty										
Supporting local food producers										

What three things do you feel that the Bournemouth & Poole Sustainable Food City Partnership should be focusing on over the next 3-5 years?

What three things do you think need to happen to support the longer-term vision (ten years) to be a sustainable food city?

Transitioning towards a sustainable food city

Introduction

The role of universities in contributing to sustainable development is now well documented (Leal Filho, 2012; Shiel *et al,* 2018; Stahlbrand, 2016) with the suggestion that higher education should be addressing sustainability on campus, in the curriculum, across operations, and in the community. Regarding the latter, it is suggested that universities have an important role to play in influencing community stakeholders and working collaboratively to build capacity (Shiel *et al,* 2016). While there are substantial publications related to the educative agenda and campus greening, there are far fewer examples related to capacity building and partnerships for sustainability in the community. This paper aims to contribute further by illustrating how one institution, Bournemouth University (BU), has engaged as a partner in the establishment of the Bournemouth and Poole Sustainable Food City Partnership (BPSFCP) to influence change. Bournemouth and Poole became one of the first of six cities in the UK, funded under the national Sustainable Food Cities Network, in 2013 (Sustainable Food Cities 2018) with BU as a partner.

As the collaboration involves multiple stakeholders, early research initiatives sought to ensure that their perspectives informed the establishment of the Partnership but also the direction of travel. It was apparent from the outset, that while stakeholders had many ideas about sustainable food, there was no single view of what needed to be prioritised; achieving a sustainable food city would be an impossible goal in the constraints of the project but beginning a transition towards sustainable local food was achievable. A participative approach, with the university helping to gather data, was thus vital in the early stages, further, it has also contributed to enabling the Partnership itself to make a transition, ensuring financial sustainability and continuity beyond initial funding.

The literature considers the role of a university in building capacity within the community, sustainable food, and sustainability transitions, including the role of agency. This paper will describe the research approaches that informed the early stages of collaboration: this involved a survey to elicit stakeholders' understanding of sustainable local food, in order to create a shared agenda and inform future strategic direction; and workshops, where paired discussions, and generation of pictorial outputs helped inform the future vision, mission, aims and values of the Partnership. The paper ends with reflections on the nature of the university's role in capacity building. Insights are~~will be~~ provided as to the implications and limitations of the Partnership in enabling a transition towards more sustainable consumption.

Literature~~Universities supporting transition: capacity building in the community for sustainability~~

It is commonly accepted that universities should address sustainable development through research, education, in their operations and in the community, with an extensive supporting literature (Velazquez *et al*, 2004; Leal Filho, 2010; Sterling *et al,* 2013) that details the breadth of what is involved. In supporting a transition towards sustainable development, many higher education institutions have adopted approaches like the 'Four C' model (Jones

et al, 2010), where Campus, Curriculum, Community and Culture represent areas where sustainability needs to be addressed, preferably as part of a holistic approach.

As early as 1999, capacity building was identified by the Association of University Leaders for a Sustainable Future (USLF) as one of several areas where universities should be engaged in addressing sustainable development (ULSF, 1999 in van Weenen, 2000). Later, Velazquez *et al* (2004) synthesised the suggestions from ULSF into four strategic themes where universities should advance sustainability: education, research, outreach/community and in campus operations. However, while debates about education for sustainable development have occupied the literature, there continues to be a paucity of studies concerning university engagement in building capacity for sustainable development at the local level, or which have involved communities (Leal Filho, 2010).

There has been substantial progress regarding sustainability research, campus greening, and education for sustainable development despite barriers, however it is suggested that capacity building within communities (through external facing projects) has lagged other areas of engagement (Shiel *et al,* 2016). Innovations have been largely in relation to campus greening but lacking elsewhere (Ávila *et al*. 2017). With respect to community engagement, many universities lack a vision for innovation, most have ignored fostering effective relationships with community partners and higher education institutions are missing opportunities to engage with sustainable development fully and in innovative ways (Ávila *et al,* 2017).

~~**Sustainable Food**~~

Turning now to the literature on sustainable food, it is apparent it lacks~~Whilst there is no~~ a legal definition ~~for sustainable food~~ (Sustain 2019)~~;~~, however there is recognition that it should reflect economic, environmental, health, and social concerns (Kindling Trust 2019). Within its production, processing, distribution and disposal it should contribute to local economies, protect the diversity of plants and animal welfare, avoid waste and contributing to climate change and provide social benefits such as healthy products and educational opportunities. (Sustain 2019). This will include embracing short supply chains.

One of many areas where universities can build capacity at a local level is in relation to sustainable food. Food and drink are essential for life and directly impact on health and well-being (Whatmore, 2002); food consumption and production are important for sustainable development. However, food distribution across the world is uneven: not everyone enjoys sufficient food, let alone sustainable healthy food and there are several anomalies. In the UK, for example, obesity has become a public concern, while demand for food banks and food poverty has increased (Loopstra & Lalor, 2017). In the Global South, while some countries are affluent and produce plenty, continued food crises in others, mean that many starve (Oxfam, 2018). Further, given climate change, there is greater awareness that the production and consumption of food has shifted in the last 20 years to become the single human activity with the most significant impact on the environment (Smil, 2000). The number of food scares has risen since the turn of the century (Knowles *et al,* 2007) and there is controversy in relation to food additives, chemicals used in food production, genetic engineering and organic

growing (Lockie, 2006), with many of the issues featured and exacerbated by the media. In this context, research on food (food security, food poverty, food production) has expanded over the last decade, in parallel calls have increased to encourage the development of sustainable food systems that ensure food is sustainably produced, food waste reduced, and the effects of an increasing population on the planet minimised (Defra, 2013; Lorenz & Veenhoff, 2013; Lubin & Esty, 2010). Earlier, Aiking and de Boer (2004) attempted to summarise some of the issues, suggesting that the topic of food sustainability is complex, involving many aspects and diverging interpretations. In brief, they identified a need for change, and greater transparency in governance.

The call for change has also been writ large and taken forward at the global policy context, where it is impossible to ignore that millions are undernourished (Food and Agriculture Organization of the United Nations. 2014) and where solutions to eradicate hunger and achieve food security are seriously compounded by climate change, population growth, migration and rapid urbanisation (UN, 2016). Globally, the central concern of eliminating food poverty, ensuring food security and access to nutritious food is now a critical aspect of the Sustainable Development Goals (SDG), articulated in SDG Goal 2 which aims to "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" through sustainable solutions including sustainable food production systems (UN, 2016). All signatories to the SDG Accord will work towards achieving the SDGs but, each SDG will require actions at the local level if the overarching ambition is to be achieved.

Despite the ambitious SDG goals, it should be recognised that the barriers to creating local sustainable food solutions are significant. These include: powerful food retailers controlling producers, stifling the opportunity for change; lack of funding with future uncertainties; those from lower socio-economic backgrounds lack knowledge and have limited resources with which to buy seasonal, healthy food and universities and schools typically are straight-jacketed with their curriculums, preventing the opportunity to focus on wider world issues such as climate change and sustainable healthy food choices (University of Strathclyde 2017).

Nonetheless in relation to food, a sustainable food and drink system needs to balance economic, social and environmental goals, deliver social benefits at the local level, while also protecting an increasingly fragile environment (Marsden & Morley, 2014). A transition towards local food solutions is a worthy consideration, and when replicated across communities, can potentially impact social, economic and environmental change. Local food systems are defined as "a method of food production and distribution that is geographically localized, rather than national and/or international" (Grace Communications Foundation, 2018). Along with locally sourced, locally produced, and organic food networks they have received interest as potential models of sustainable consumption (Watts *et al,* 2005) and may be the way forward.

~~**Sustainable Transitions**~~

This case study contributes to the knowledge of the early stages of sustainability transitions with a local food system. Sustainability transitions are fundamental long-term shifts within an established socio-technical system that encompass changes in markets and cultural discourses when moving to more sustainable means of production and consumption (Geels *et al,* 2008; Markard *et al,* 2012). These transitions embrace policy shifts within the governing institutions (Geels *et al,* 2008) and can affect regimes, for example the established methods of food procurement and consumption resulting in behaviour change from the actors involved (Spaargaren *et al,* 2012). Socio-technical systems can include housing, healthcare, water supply, transportation and food and agriculture (Coenen *et al,* 2012) and the latter sector, specifically food systems is of interest here.

~~Actors and their Agency~~

The literature identifies that there are multi-actor partnerships within the sustainable arena (e.g. Oldenhuizing *et al,* 2013) with Mader *et al,* (2013) identifying ways that higher education shares knowledge with regional actors. Typically, these ~~actors in this arena~~ include farmers, food industry employers and employees, retailers, consumers and regulating authorities (Spaargaren *et al,* 2012). The actors involved in this case study include BU, the Partnership manager, local authorities and members of the BPSFCP. Transitions can result in different relationships and organisation amongst actors within the food system, because of new arguments and technologies to underpin new food practices, which in turn affect consumer behaviour (ibid). Therefore, actors and their agency are of interest, particularly their involvement devising the Partnership's strategic direction. Human agency is defined as the capacity of an individual to create meaning though considered thought, reflection and action from their environment (Houston, 2010). Stahlbrand (2016) argues that agency can proactively promote regime change rather than adopting a supporting role and calls for further research here. Moreover, Markard *et al, (*2012) identify the need for further in-depth studies regarding strategic development, including the creation of new regime structures, involving the strategic interactions amongst networks of actors viewed through a management studies lens.

In summary, the analysis of the literature calls for further understanding as to how universities can build capacity for food sustainability within a local community, building effective relationships with local community stakeholders. Specifically, ~~we~~ this paper investigates the strategic development that contributes towards a sustainable transition. ~~We offer additional~~Additional reflections are offered ~~on~~ in regard to actors and their agency, specifically those from the university and local government who influence~~ing~~ the current regime of food procurement and consumption, and local governance policy.

Insight into these agendas is gleaned from a ~~n action research approach regarding a~~ university's involvement with the strategic development of a sustainable food system. The research aim was to build capacity for food sustainability within a local community through creating effective relationships with local community stakeholders. Deploying a transparent and inclusive process involving a variety of actors, the research objectives were to:

RO1. To assess the current understanding of sustainable food and its context.

RO2. To create a shared agenda for future development.

R03. To inform future strategic direction.

RO4. To determine the Partnership vision, mission, aims and values

~~The research involved two phases; . T~~the ~~method, case study context, research phases and subsequent outcomes follow.~~

Method

This paper adopts a case study approach (Yin, 2014) and represents an empirical inquiry into sustainable development progress within the BPSFCP. In developing the case study, the authors, who are participants in the Partnership, have engaged in a process of participative inquiry and practice (Reason & Bradbury, 2001). The paper represents an output from collaboration between university researchers and a practitioner (the Partnership manager). The case study includes two sub-strands of research undertaken by the Partnership. Rather than detail the method/s used in each ~~phase~~ here, ~~the and~~ the multi-methods adopted at each stage are explained further ~~are detailed after the~~ after the case study context is provided. ~~.~~

The case study context: developing the BPSFCP

BU is a UK, medium-sized, post 1992 university, with approximately 19000 students. The ~~U~~university is on the South Coast of England, on the boundary between the adjacent towns of Bournemouth and Poole. Engagement with the concepts of global citizenship and sustainable development began in 2005 and became a strategic concern from 2006, with the aim of adopting a holistic approach (Shiel, 2007). Sustainable development is incorporated into ~~U~~university strategy and policies, featured within research and the curriculum, and is central to campus operations. Developments have progressed in a similar approach to the 'Four C' model' (Jones, 2010) but have not always been successful in securing an integrative approach; the 'community' element has been somewhat ad-hoc and un-evaluated. Nevertheless, BU has made substantial progress (see Shiel *et al,* 2018) and has a reputation for being one of the UK leaders regarding the sustainable development agenda. As part of the external facing agenda, BU became a supporter in partnership with community stakeholders in submitting a successful bid to develop as a Sustainable Food City.

The national sustainable cities' programme recognised the key role of communities in contributing to sustainable development by transforming food culture and food systems. At the national level sustainability was described as the direction of travel rather than a specific destination and although they were not prescriptive, they suggested six key areas to consider at a local partnership level:

1. Promoting healthy and sustainable food to the public

2. Tackling food poverty, diet-related ill health and access to affordable healthy food

3. Building community food knowledge, skills, resources and projects

4. Promoting a vibrant and diverse sustainable UK food economy

5. Transforming catering and food procurement

6. Reducing waste and the ecological footprint of the UK food system

The BPSFCP sought to establish itself with these aims. The Partnership comprises "local people, businesses, community groups and public-sector organisations who have come together to revolutionise the way people across the region grow, buy, cook, eat, celebrate and dispose of their food" (Bournemouth and Poole Sustainable Food City, 2018). The university's role incudes Board membership contributing knowledge including sustainability and strategic planning, together with sitting on other council committees such as Fair-Trade town, a steering group established to support Fair Trade locally. The Partnership manager is an experienced practitioner having worked with multifaceted sustainable development organisations locally and as a short supply chains expert across the EU. Other Partnership members include food security and food poverty practitioners, skills and learning advocates, local business owners, restaurateurs, hotel managers, community garden organisers as well as residents. The Partnership's structure consists of a Board, including two university academics, representatives from both local authorities, Public Health, Transition Towns, local charities and leaders of smaller food projects. There are 450 members within the total Partnership.

~~Taking collaboration forward~~ Research Initiatives

In collaboration with university stakeholders, the Partnership embarked on two research initiatives, to provide a platform for subsequent activity and future direction. In line with Walker *et al,* (2004) the objectives, or purpose, and methods are explained facilitating replication for future studies. The first initiative commenced in October 2014 and its~~aim, method and outcomes of each phase are presented below:~~

~~Phase One: October 2014, aim and method~~

~~The early~~ objectives were to assess the current understanding of sustainable local food and create a shared agenda among Partnership members, to quickly inform future direction rather than a more sophisticated approach. A survey method was employed, using rating scales, and open-ended questions which were thematically analysed. 34 members of the burgeoning Partnership responded to a Partnership newsletter request for survey respondents (7.5% response rate). They completed a written survey returning this directly to the Partnership Manager. They reported directly on their understanding of the term 'sustainable food', awareness of other sustainable food schemes, current awareness of sustainable food in the local area, frequency of purchase of local food items, and priorities and key issues around sustainable food. This was a small but representative sample, as respondents were typical sustainable food consumers. Appendix One provides a summary of the questions. Open ended questions' responses were coded using a separate spreadsheet using emergent coding; the sequence in which the comments were spontaneously mentioned was considered.

~~Outcomes~~

Thematic analysis revealed that respondents reported that "sustainable food" was predominantly connected with "local" contrasting with research asserting that sustainable food does not have to be local and local food may not be, in all instances, sustainable (Grace Communications Foundation 2018). Other associations frequently mentioned, were environmental protection including responsibly sourced and sustainable fishing. Less frequent associations included organic, health, community, food poverty, Fairtrade, no pesticides, effective use of resources, food security, seasonality, supply chains, ability to grow, future perspective, price/cost and ethical issues.

Respondents were aware of national and international schemes rather than any local initiatives. While all the respondents had heard of Fairtrade, only 74% were aware of the Rainforest Alliance with 65% being conscious of the Marine Stewardship Council. Despite their interest in local food, local initiatives had lower awareness; Dorset Local Food and Drink (59%), Real Local Flavour (41%) and Hampshire Fayre (18%) (see Table One).

Table One: Scheme Awareness

Respondents reported that the most frequently purchased local food and drink products were locally sourced vegetables and Fairtrade products followed by locally sourced fruit, locally sourced dairy products locally sourced meat, bread from a local bakery and finally locally sourced drinks (see Table Two). Despite the respondents' engagement with locally sourced produce, they tended to disagree that food in Bournemouth and Poole is sustainable, people in the area are aware of the need for sustainable food or that it is easy to find sustainable food in the local area (see Table Three).

Table Two: Frequency purchase data for local food items

Table Three: Sustainable food responses

To help inform the Partnership's future direction, respondents were asked about the key issues and priorities around the sustainable food agenda. The thematic analysis revealed that they again focused on local. Education emerged as an important issue, including the need to raise awareness and provide information where to find sustainable food. Other notable issues included the environment, sourcing, including sustainable fishing, supply chains, availability, price and affordability. Mentioned less frequently were concerns related to animal welfare, health, the ability to grow food, having sufficient resources, equality including fair access to sustainable food for everyone, food poverty and food waste.

Respondents ranked a set of possible priorities of the Partnership on a 10- point scale (1 = most important; 10 = least important (see Table Four). Top priorities are campaigning to increase understanding of sustainable food within the community, and minimising food waste and using food surplus more effectively. The campaigning aspect aligns with the earlier requirement to educate. Then a more supply-driven focus is apparent with supporting local food producers, increasing sustainable food sourcing in business, and supporting sustainable food businesses. Community growing followed tackling food poverty, increasing sustainable

food sourcing in the public sector, teaching cookery and other food skills, and finally, improving individual health and well-being.

Table Four: Priorities responses

When respondents gave their opinions in response to an open-ended question as to the Partnership's focus for the next 3-5 years, education emerged as the predominant issue. The thematic analysis revealed that other focus areas included community growing, food poverty, food waste and local. The involvement of local government was raised for the first time, followed by issues around sourcing, availability, accessibility, supply chains/distribution and the need for appropriate business and marketing solutions. Respondents opined about what was required to support the longer-term vision (ten years) to be a sustainable food city. Education was highlighted again, together with business marketing solutions and business support. There was a need ~~for a 'seismic shift' in~~ to chang~~e~~ing perceptions and attitudes toward sustainable food, reflected in the theme 'seismic shift'. Respondent quotes evidencing this included "a fundamental change in attitudes and awareness", "a change of culture through education and awareness" and "a miracle". Managing sourcing and availability issues, local government involvement as well as funding, were deemed important along with efficiencies in the food distribution system. Finally, community growing, local and addressing food poverty were considered important in becoming a sustainable food city.

Many of these findings reflect those of Marsden & Morley (2014) noting a need to balance social, economic, and environmental goals for a sustainable food system. Moreover, the theme 'seismic shift' was identified to change attitudes and behaviour, which underpins the nature of a sustainability transition. These findings recognised the requirement to support local producers and businesses and to involve local government. However, these were early days in seeking to influence the latter albeit Board representatives of both councils were privy to these research findings. The Partnership was commencing many of their initiatives and it was too early to evaluate their effects against the current regime of local food procurement and consumption practices.

The first ~~phase~~ initiative was mainly led by university staff and provided a better understanding of participants' conceptions of sustainable food plus a foundation for future project direction. However, in October 2015 it also became apparent that without a focus on the Partnership's strategic development, given the finite funding and resources available, that the Partnership would not survive. It needed to become independent of both councils and financially sustainable.

~~Phase Two: November 2015, aim and methods.~~

The second initiative took place in November 2015 and its~~The~~ objectives were to inform future strategic direction and articulate a vision, mission, aims and values for the Partnership. Whilst BU was instrumental in the survey design for the first initiative~~Phase One~~, on this occasion the Partnership manager led the activities ~~for Phase Two~~, with the academics adopting a more supportive role. Specifically, this entailed two workshop sessions, during November 2015, involving paired discussions followed by the production of pictorial outputs

in slightly larger groups. A second workshop with eight participants took place at the end of January 2016, completing the data collection.

~~Outcomes~~

~~Workshop: Paired Discussions (November 2015)~~

Partnership members were invited through email and the website to participate in two workshops to help determine the future vision of the Partnership. These sessions took place in a local community centre, with 43 participants on 3rd November 2015. Five of the 19 previously surveyed members, expressing interest in inclusion for future research, attended the workshops. Initially respondents were asked to work in pairs with one group of three to identify what was working well and what could be improved. The answers were analysed using a simple SWOT analysis which helped identify initiatives with which the respondents were familiar. The results from all these discussions revealed the Partnership's progress to date.

Strengths revealed that professional and community groups and organisations networked well together showing good private and public-sector involvement in a shared agenda. Good project management, relevant experience and knowledge evident with links created with education providers (e.g. primary schools, Poole Grammar School). Fairtrade town status is already achieved. Awareness of the Partnership and sustainability issues is increasing amongst the public and within organisations, however generally awareness levels are low. There is a need to increase awareness of successes (e.g. online Food Assembly [1], community gardens [2], Sustainable Fish City [3], Zero Waste Kitchen Challenge [4]) with both the public and potential new funders; a bigger membership is required with bigger players (e.g. local firms). Promotion and availability of affordable local food needs to increase in the area. Public education is required regarding local food production and sourcing, healthy eating, cooking and food waste. Focus is required on fewer projects given restricted resources and impact can be measured.

There are future opportunities such working with Food Banks and roof-top gardening however there are significant threats including the abundance of cheap, unnatural and fast foods with an associated unhealthy culture. Little attention is paid to the environmental impact of conventional food production and food miles. There is little infrastructure available for sustainable food and production of economically viable sustainable food is challenging. There is no agenda from government for sustainable food production/consumption and farming subsidy systems are perverse.

~~Workshop: Pictorial Analysis (November 2015)~~

Following the paired discussions, a pictorial analysis took place where respondents were put into larger groups asked to draw their vision of how they would like to see Bournemouth and Poole in the future as if it was a sustainable city. An example of one picture is shown in Figure One.

Figure One: Visioning Picture

In total nine pictures were created, and a synthesis took place of the data including words and visuals. These were grouped into themes which formed the basis for vision and mission development. These themes were visionary and contributed to a series of aims. Some 29 separate references were attributable to producing sustainable food, contributing to the theme “wherever I look, food is growing”. This subsequently underpinned an aim to achieve “a city where food is grown and reared in public and private spaces by individuals, community groups and enterprises”.

25 references contributed to the theme "I can always find an affordable, sustainable food option" which underpinned an aim “a city where food is bought, traded and sold through community enterprise and businesses using independent, new and traditional market places and spaces”. 14 references contributed to the theme “everyone understands the impact of their food choices on themselves and the planet around me, by growing and cooking their own food with little or no waste”. This led to the aim to achieve “a city where everyone has food skills and knowledge, feels confident in their food choices, understands sustainable food issues and can access”. 10 references were assigned to a local government theme "planning and regulatory services are supporting me and my community to grow and food businesses to flourish, and my local school and hospital have a predominantly sustainable food offering". This evolved into an aim “a city where governing bodies understand the holistic benefit of a sustainable food system, regulate to support its growth and commit to procure sustainable food whenever possible”.

The references became fewer but those relating to the environment were captured by the aim “a city where residents, especially children, and visitors enjoy sustainable food, surrounded by a verdant and bio-diverse environment”. Some four references revolved around sustainable fish expressed by “being a Sustainable Fish City means I can enjoy eating fish" underpinning the aim “a city where all the fish served is sustainably sourced and local fish is readily available”. A final theme concerned composting and together with earlier research mentions of food waste, reflected the sentiment "I never throw food away". This evolved into an aim to have “a city where businesses and communities minimize their food waste and compost anything left”. An important theme brought forward from the first research initiative ~~Phase One research~~ was food poverty, so a corresponding aim was created: “A city where everyone, no matter their situation can readily access sustainable, nutritious food and where food poverty has been eradicated.”

Whilst these aims are aspirational, they support the vision. These were then synthesised into one vision statement which reflected Parikh and Neubauer’s (1993) definition which is to create a more inward-looking image of the organisation’s desired future. It is ‘to grow a flourishing city region where good food and better food choices lie at the heart of every community”. Correspondingly, the mission is more purposeful, determining the nature of the organisation’s business and why it exists (ibid). The Partnership’s mission was therefore to connect, support and enable our food community, helping to grow a thriving food sector and cultivate nourished neighborhoods.

~~**Workshop: Values (January 2016)**~~

To support the vision, mission and aims, the Partnership developed a set of values to reflect its ethical stance, principles and standards of behaviour. A workshop with eight participants from the Partnership took place early January 2016. The group were introduced to the purpose of values as a list of key beliefs that would guide the Partnership's operations and help others understand what it stood for. A list of 76 different potential values were presented, with three further ones added by the group themselves. Each individual selected the eight values they felt most represented the beliefs of the organisation to them, and then undertook the process of ranking these in order of importance. These values and their rankings were then combined and analysed to identify the most frequently cited and highest ranked, to provide the Partnership's values. This generated the following values with the groups' qualitative justification for each being captured.

Unity: We strive to connect and unite all our communities together around a shared belief in the value of good healthy food.

Stewardship: We care for, value and preserve spaces for growing, cooking and eating food, food knowledge and culture with honesty and integrity.

Resilience: We work to create resilience across the food sector, building food security whilst remaining a dependable, sustainable Partnership.

Nourishment: We know that food nourishes the mind and soul as well as the body, so we strive to be creative, original and flexible in all that we do to provide real nourishment to all those who work for and with us.

Commitment: We are fundamentally committed to creating a vibrant, socially just and inclusive food sector.

Reflections

Commented [J1]: It needs a couple of insights

These reflections reflect a notion of challenge (Walker *et al,* 2004) in that viewpoints are shared with others with recognition of further issues to be addressed. Members of the university were involved in both ~~phases of~~ research initiatives, contributing to capacity building. The following reflections consider~~,~~ the nature of this capacity building, the role of university actors working towards creating the transition, the local government actors, and finally the promotion or alteration of current regimes of food procurement and consumption.

~~The Nature of Capacity Building~~

This case study illustrates that capacity building involves working collaboratively with partners (Shiel *et al,* 2016), in this case the BPSFCP, where capacity building in the community involves building relationships and sharing knowledge with other community stakeholders. These included Board members, who represent both local authorities, local charities, and leaders of smaller food projects. The ~~U~~university has been a member of the Board since the Partnership's inception and has played an important continuity role as the membership has been shifting and dynamic, exemplified by three Chairs (in a short period) with a variety of experiences.

Capacity building is demonstrated by an external entity (i.e. the ~~U~~university) assisting an institution (i.e. the Partnership) to continuously improve its processes (Brown *et al,* 2001). University members have helped to inform strategic direction, vision, mission, aims and values. This evolving clarity has provided a base for many successful and innovative projects, helping the region to begin a transition towards a sustainable food city. However, those academic staff who have led and supported developments did so in a volunteer capacity. This requires substantial goodwill and time. Academic staff who engage in capacity building need to be highly committed and resilient to make progress when other stakeholders may be less committed and less used to working in a strategic way.

~~University Actors~~

University actors have contributed towards capacity building by specifically focusing on a theme of education around sustainable food. This involved creating a working group to develop regional, national and international links to exchange information, to further research opportunities, to embrace innovation and to disseminate good practice. Human agency from this group was more discernable in comparison to those actors leading other themes within the Partnership such as commercial support and carbon reduction. This was evident from conferences attended, reciprocal visits from other sustainable cities, liaison with DEFRA around becoming a European Innovation Partnership operational group, exploring knowledge transfer partnerships with the university working with the ~~U~~university and disseminating case study information around successful initiatives.

Other projects involved ~~U~~university students such as Waste Less, Save More [5]. Student interns helped deliver the Good Food Accreditation scheme [6] increasing awareness amongst businesses and the public. These projects helped build capacity as they help to provide evidence and build competencies (Spoth *et al,* 2004) around workable sustainable food solutions. The Partnership spear-headed several live briefs for students, enhancing the curriculum, benefiting learning around local sustainable issues and subsequently generating some creative ideas and solutions. Student internships supporting the Partnership manager, provided work experience, supporting the assertion by Schmitz *et al*, (2010) that community projects provide an ideal environment for student learning.

There are, however, human and financial resource constraints on the ability to build future capacity. There have been many successful bids enabling small projects to be implemented. However, larger funding opportunities remain elusive. These can require investment upfront such as investing in securing planning permission for a roof community and garden project. This is required by a larger funder before they would commit, and the Partnership lacks the available funds.

~~Creating a transition~~

To what extent does capacity building result in transitions? The case study reveals that while BU actors have supported a transition of the Partnership itself, there is more to do to

transition towards a sustainable food city. A transition is a structural change and new modes of production and consumption result, with an accompanying set of behaviour changes from the actors involved (Spaargaren and Oosterveer, 2012). Whilst there may be some promising transitionary projects such as the online Food Assembly, the findings show it must gain more traction amongst a wider audience. The first research initiative ~~Phase One~~ identified the need for a 'seismic shift' required to change attitudes and behaviours, with the second initiative ~~Phase Two~~ continuing to highlight the need for wider public education regarding local food production and sourcing, healthy eating, cooking and food waste. Whilst there has been some focused and cost- effective initiatives implemented, the Partnership lacks the necessary financial resources with which to raise awareness and educate a wider audience. Further, lack of initial funding meant that a baseline for measuring a transition was never established. Capacity building ~~and also~~and transitions, require evaluation with robust measures; these are often missing from one-off projects; without a baseline measuring success is problematic (Shiel *et al*~~.~~, 2016).

~~Local Government actors~~

In relation to a transition of this nature, local councils have considerable influence. Within the BPSFCP they have played a largely supportive rather than a proactive role. They provided some initial funding at the outset and Bournemouth Council provided accommodation and support for the Partnership manager but then struggled to determine which department aligned best with the Partnership, resulting in departmental moves, from Economic Development and Sustainability to Housing Enforcement and Communities. This reflected the level of understanding within departments of sustainability (and sometimes a lack of understanding) and how it impacts on their work portfolios. Bournemouth Council has yet to align all of its council practices with the goal of sustainability, creating occasions of internal conflict. This limited the Partnership's ability to influence local government policy albeit that some shifts have occurred, exemplified by the Partnership's Sugar Smart campaign leading to a potential Council policy declaration on reducing sugar. To improve traction within Councils, it would be ideal if there were an individual 'champion' or 'ambassador' in a key position, with a clear understanding of sustainability and sustainable food.

~~Promotion or alteration of current regimes of food procurement and consumption~~

The Partnership has been proactively trying to influence regime change, rather than adopting a supporting role (Stahlbrand, 2016). The research has captured a shared stakeholder understanding of sustainable food and its context to develop strategy. Research findings informed aims and vision; however, these have remained aspirational despite the promising progress of the Partnership. Key to success is the implementation of a mission, which serves to connect, support and enable the food community, helping to grow a thriving food sector and cultivate nourished neighborhoods. To achieve this, solutions need to be found to overcome weaknesses identified in the SWOT, to increase awareness of successful projects and to build and extend membership within the community. This can be assisted by wider public education regarding accessing local food, healthy eating, cooking, and food waste. The

Partnership's desire to proactively promote and alter the current methods of food distribution and consumption are evident; nonetheless, they lack the resources required to do so.

There are some pockets signaling regime change. The online Food Assembly directly challenges conventional ways of food procurement and consumption albeit it lacks scale to mount any serious challenges against current practice. The key challenge it faces is that consumers are reluctant to change their behaviour regarding collection of their online order, preferring direct delivery, creating further logistical challenges for the Partnership.

Regime change ~~arguably~~ has taken place within the Partnership itself. It has moved from being funded initially by an initial combination of start-up grants, to being self-financing. Grant applications have benefitted from the additional clarity of the Partnership's strategic direction. The Partnership manager has secured additional funding from Sustain, Sainsburys, the Postcode Lottery and the Big Lottery, helping to sustain the Partnership itself.

Conclusions, ~~and~~ Limitations and Implications for further research.

This study contributes to a body of knowledge regarding strategic development as called for by Markard *et al,* (2012). The Partnership has established promising foundations and fostered a genuine attempt for change, although this may be more incremental, given the resources available. BU has built capacity for the BPSFCP through this research project and ongoing commitment involving fostering effective relationships with community partners. It has helped the Partnership establish strategic direction which in turn, has guided innovative projects that produce evidence and build competencies around sustainable food solutions. Grant applications have benefitted from inclusion of this clear vision, mission, aims and values, enabling the funding of further capacity building projects.

Running such a community project is challenging. There are limitations to the availability of human and financial resources preventing further opportunities to build capacity. Critically, wider public education would increase awareness and the membership. Greater education and knowledge support the Partnership's mission, which is to connect, support and enable the food community, helping to grow a thriving food sector and cultivate nourished neighborhoods.

Whilst there are promising projects that sow seeds of behaviour change, it is early days. The Partnership struggles to establish its own socio-technical system underpinning any fundamental long-term shift, typifying a sustainable transition (Geels *et al,* 2008; Markard *et al,* 2012). The Partnership has limited influence with the local council policy. Local government remains in a supportive capacity, needing to determine where sustainability fits within its own strategy. Consequently, agendas occasionally conflict, although frequent communications between parties allow the ability to move forward with some behaviour change from the actors involved (Spaargaren *et al,* 2012). Transition takes time and local government structures move slowly; regime shift in the short term is ambitious.

The research method used was a descriptive case study method which has limitations but learning from such studies is important for wider transformation for sustainable development

(Sharp 2002) and enables others to consider possibilities and challenges (Shiel et al. 2019). Research reflections have focused on two specific groups of actors, namely those from the university and local government. Future research can include a broader range of actors.

~~This study contributes to a body of knowledge regarding strategic development as called for by Markard *et al* (2012). The Partnership has established promising foundations and fostered a genuine attempt for change, although this may be more incremental, given the resources available.~~

~~Implications for further research~~

The case study demonstrates that while progress can be made in terms of a journey towards sustainable food at a local level, further research is necessary to identify the multiplicity of factors that facilitate and inhibit progress. Further case studies that demonstrate how capacity building in the community leads to successful sustainable transitions would be helpful particularly case studies which deploy robust measures for evaluation. Although case studies of this nature are not replicable, some of the methods, ~~the~~ findings and implications resulting from this case study can inform other similar contexts. Finally, the case study documents the beginnings of a transition; subsequent research activity exploring broader human agency influences on local food procurement and consumption needs to contribute to Tilbury's (2011) call for longitudinal research.

Footnotes

[1] Online Food Assembly: a new market outlet bringing producers and consumers together through an online ordering system and shared weekly pick-ups to improve access to locally produced food. The Bournemouth Assembly has 937 consumers.

[2] Community gardens: the purpose is to build social inclusion and increased the nutritional value of participants' diets. Gardeners' skills are developed, knowledge shared, and new gardens established in key areas of deprivation.

[3] Sustainable Fish City: the region is the first Sustainable Fish City in the world. It encourages public sector organisations, schools, offices and local businesses to commit to only sourcing fish approved as sustainable. Over 3.6 million fish meals a year in the region use sustainably sourced fish.

[4] Zero Waste Kitchen Challenge: worked with 52 BU student households to reduce their food waste. Through one to one support, food waste kitchen gadgets and a series of cookery workshops students reduced their food waste by 48% and are disseminating their new food skills into the community.

[5] Waste Less, Save More: a community-wide campaign to minimise food waste and enable food surplus distribution. Includes Community Fridges, Cookery Workshops and Feed the 1,000 events.

[6] Good Food Accreditation scheme: assesses and ranks business across 5 areas of sustainability – local sourcing, sustainable sourcing, food waste minimisation, work with communities and communication. Includes support to improve and promotion through website profiles and merchandise.

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