

Shoots and Leaves: Exploring the impacts of civil society sustainable place-making projects working in deprived urban areas in the UK

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Abstract

Sustainable place-making is a concept combining 'place-making' and 'sustainable development' to describe community-focused activities working towards environmental, social and economic aims (Franklin and Marsden 2015). This research critically analyses approaches to sustainable place-making in deprived urban UK communities by focusing on a 3-year £1m civil society-led project in Hull, which implemented urban agriculture, local environmental and community energy activities. The research focused on interviewing staff and participants during and after the project, supported by quantitative data analysis.

The project successfully engaged marginalised people in deprived communities, who strongly voiced outcomes including improved mental health, resilience to food and fuel poverty and improved self-reliance. Accessing, protecting, improving and enjoying the local environment (including involving children and improving biodiversity) emerged as an important factor in realising these outcomes and participants also valued connections to tackling climate change. In addition, involvement in a positive project enabled participants to give-back to their communities through volunteering in place-making activities. These are important outcomes in this period of cuts to public services and expenditure and their impacts on marginalised people.

However, a range of internal and external project governance issues impacted on the effectiveness and long term sustainability of activities. Long-term *sustainability*, relating to continuation of activities to embed benefits over time, is a critical and unexplored issue. There was no continuation funding and some activities ceased. Some urban agriculture activities were continued by staff and volunteers, but these were fragile without support. The Local Authority provided ad-hoc support but in the absence of a clear strategy and there was no support from Central Government. The research reinforces sustainable place-making as an important emerging framework.

The research showed that it is essential to support civil society as leaders of sustainable place-making, through increasing recognition, strategic support, and reflexive funding. This will require a shift from a neoliberal focus on economic priorities to a focus on achieving social and environmental outcomes.

Author's declaration

I declare that the work in this thesis was carried out in accordance with the regulations of the University of Hull and is original except where indicated by specific reference in the text. No part of the thesis has been submitted as part of any other academic award. The thesis has not been presented to any other education institution in the United Kingdom or overseas.

Any views expressed in the thesis are those of the author and in no way represent those of the University.

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Glossary of acronyms

BLF	Big Lottery Fund
BME	Black and Minority Ethnic
BoD	Board of Directors
CO ₂	Carbon Dioxide
CE	Community Energy
CEO	Chief Executive Officer
CLS	Communities Living Sustainably
COP 15	Conference of the Parties - fifteenth session.
CSO	Civil Society Organisation
DECC	Department of Energy and Climate Change
DBS	Disclosure Barring Service
DLA	Disability Living Allowance
DRC	Democratic Republic of Congo
DWP	Department of Work and Pensions
EHCF	East Hull Community Farm
EMS	Environmental Management Solutions (Yorkshire)
EU	European Union
FGP	Family Growing Project
FiT	Feed-in-Tariff
FTE	Full Time Equivalent
GP	Green Prosperity
HCC	Hull City Council
IPCC	The Intergovernmental Panel on Climate Change
LA	Local Authority

LA21	Local Agenda 21
M&E	Monitoring and Evaluation
NEF	New Economic Foundation
NHS	National Health Service
NYC	New York City
P&F	Pickering and Ferens
PIP	Personal Independence Payment
PPM	Parts per Million
RC	Refugee Council
RSL	Registered Social Landlord
SAP	Standard Assessment Procedure
SCE	Southcoates East
SROI	Social Return on Investment
TT	Transition Town
UA	Urban Agriculture
UK	United Kingdom
UN	United Nations
US	United States of America
WCED	World Commission on Environment and Development
WHD	Warm Home Discount
WW2	World War 2

Shoots and Leaves: Exploring the impact of civil society sustainable place-making projects working in deprived areas of the UK.

Chapter 1) Introduction to the research and structure of the thesis

1.1) Introduction to the research

This research critically analyses approaches to community-level ‘sustainable development’ focused activities working in deprived urban communities in the UK. The research focuses on the case study of a Big Lottery Fund (BLF) project in Hull. The Green Prosperity (GP) project was a 3-year £1m project managed by local civil society organisations (CSOs), which implemented a range of community-level sustainability-focused activities including urban agriculture (UA), community energy and carer support activities. The BLF funded the GP project as part of the Communities Living Sustainably (CLS) funding stream which supported 12 projects in deprived areas across the country and tried to explore connections between climate change, sustainable living and poverty reduction.

The research considers the extent to which the Green Prosperity project was able to achieve social, environmental and economic outcomes at individual and community levels and the extent to which the activities could contribute towards action against climate change. The research focuses on investigating:

- the role of civil society in developing community-level sustainability activities;
- approaches to engaging marginalised groups and why this is important;
- the benefits at individual, community and global scales;
- whether the activities are sustainable and in what ways.

This thesis will explore these issues through the concept of sustainable place-making. Place-making is an active process described by Pierce et al (2013: 54) as the ‘set of social, political and material processes by which people iteratively create and recreate the

experienced geographies in which they live'. Sustainable place-making is a term used by Franklin and Marsden (2015) which combines concepts of 'place making' and 'sustainable development' to describe community-level sustainability-focused activities working towards environmental, social and economic aims (Holland 2004, Crane et al 2012, Franklin and Marsden 2015). Although the term is developed by Franklin and Marsden (2015), there is a wide range of literature that identifies the potential of community-level sustainability-focused activities as examples of 'sustainability in action' and which could fall under the umbrella term of sustainable place-making (Holland 2004, Crane et al 2012, Creamer 2015, Franklin and Marsden 2015). Examples of sustainable place-making activities include urban agriculture (UA) and community gardening, enhancing and protecting green spaces including parks, local tree planting, community energy projects, community water projects and localised transport initiatives (Holland 2004, Seyfang and Smith 2007, Franklin and Marsden 2015, Parkhill et al 2015).

The research also reviews the extent to which the activities were 'sustainable' after the three year project was completed and considers 'sustainability' in terms of survival, continuation and diffusion over time. This use of the term 'sustainable' is in addition to the use of 'sustainable' in sustainable development involving environmental, social and economic aims (Smith and Seyfang 2013, White and Stirling 2013).

The research used the Green Prosperity project as a single case study and was conducted for over two years in combination with a monitoring and evaluation (M&E) role with the project. A grounded theory approach was adopted to allow themes to emerge from the project and the main focus of the research was qualitative research to bring out the voices of staff and participants, with quantitative research to guide and triangulate findings (Long 1992, Mertens 2007, Creamer 2015). I conducted over 160 interviews, including follow-up interviews with many participants and staff during and after the project. In addition, I worked with the project to produce and analyse a wide range of quantitative information including a survey of recycling behaviour, a record of who participated in project activities and different types of outcomes. I also attended many project activities, meetings, workshops and reviewed a wide range of project documents. The findings feature a large number of quotations and other information from staff, participants and wider stakeholders, although pseudonyms have been used to guarantee anonymity.

This research will contribute to a body of literature exploring sustainable place-making and different examples of projects including UA and community energy projects (Holland 2004,

Franklin and Marsden 2015, Parkhill et al 2015). However, there is a gap in available research in terms of a longitudinal case study that provides a detailed account of a project intervention across a range of different community-focused sustainable development activities. There is also a gap in the literature exploring how local authorities in the UK support sustainable place-making, in contrast to research in North America.

The research addresses these gaps through describing the GP project during implementation and after completion, including detailed accounts of urban agriculture and community energy interventions as examples of sustainable place-making, but also an account of activities that failed to make an impact. There is a strong focus on the importance of civil society in leading and developing projects and role of local government in supporting sustainable place-making. In addition, the research brings together learning on outcomes for people in deprived areas, how project governance impacts on effectiveness, and the importance of long-term sustainability and how it can be achieved. There is also a strong emphasis on bringing out the voices of staff and project participants. A focus on the views of participants - describing the benefits of sustainable place-making activities and connections between their actions and wider environmental goals from their own experience – provides an essential and sometimes overlooked perspective on the potential for long term engagement and support.

This empirical research is therefore important to realistically and critically analyse the potential for sustainable place-making activities to bring long term environmental, social and economic benefits to local communities, and wider environmental benefits globally (Tornaghi and Van Dyck 2015, Franklin and Marsden 2015).

1.2) Research aims and objectives

The research explores the following aim and objectives.

Aim: This thesis will explore how sustainable place-making activities can be supported to achieve social, environmental and economic aims, with a focus on marginalised people from deprived urban places.

Objective 1 – To examine the extent to which sustainable place-making activities can lead to social, economic and environmental outcomes.

To meet this objective, I will investigate the outcomes of sustainable place-making activities (community-level sustainability-focused) at individual, community and global levels. This will include exploring the individual and community-level benefits for marginalised people in deprived urban communities and the extent to which benefits are sustainable in the long term. It is also important to consider who engaged with the project (and who did not engage). Concepts of building social capital and providing opportunities for people to give back to their local community will also be explored. The research also identifies whether there is any evidence for sustainable place-making activities to have wider environmental benefits.

Objective 2 – To examine how project governance influences the effectiveness of sustainable place-making activities.

I will explore the role of civil society in delivering sustainable place-making activities. The research will also describe internal and external factors influencing project governance arrangements, including the role of donors, and how this impacts on programme effectiveness and sustainability. A range of internal project governance issues will be highlighted through comparing the different Green Prosperity activities including UA, community energy, and other activities. I will also consider connections between project governance and engagement of people in deprived communities, including exploring concepts of volunteerism.

Objective 3: - To explore the extent to which sustainable place-making activities can be sustained and effective over the long term.

The research considers different aspects of long-term sustainability in terms of staff and participants being able to continue activities, the development of networks and support, the potential for further funding, and diffusion to other activities and actors. I will also investigate how local authorities support community-level sustainable activities from the real-life perspective of the GP project and to what extent Central Government played a role. To meet this objective I also consider how the project contributed towards environmental sustainability and if this provides a platform for further support for sustainable place-making initiatives.

1.3) Structure of the thesis

The next chapter, chapter 2, introduces the case study context: the Green Prosperity (GP) project and how it was supported by the Big Lottery Fund (BLF). The chapter also describes how the GP project was developed to address some of the key issues in two relatively deprived council wards of east Hull, before exploring the local context in Hull including exploring how poverty affects marginalised groups. The chapter also identifies many of the positive developments in Hull including becoming the UK City of Culture in 2017.

Chapter 3 is the beginning of the literature review. Based on the context of the Green Prosperity project and the research aims and objectives, Chapter 3 first discusses concepts of sustainable development as a method to tackle climate change. Within this discussion there is analysis of the effectiveness of inter-governmental 'top-down responses' and the dominant neoliberal focus on economic priorities. The review then explores arguments relating to social sustainability and community-level approaches. Chapter 3 then critically analyses the role of cities and arguments that cities have the potential to be important actors in working towards sustainable development. In my analysis of the literature, I compare different approaches between prosperous cities with resources to post-industrial cities with limited resources, in both North America and the UK.

Chapter 4 continues my review of the literature and critically analyses different types of community-focused sustainable development activities, with a focus on the concept of sustainable place-making, which builds concepts of local-level sustainable development into place-making (Franklin & Marsden 2015). The chapter also describes contrasting views on their potential and how they should be supported. Urban Agriculture (UA) and community energy activities are explored in detail due to their importance to the Green Prosperity project. The literature review presents evidence from research on UA and community energy projects including the scale of activities and benefits at individual, community and global levels from these community-level activities. There is a particular focus on benefits for vulnerable people given the context of the Green Prosperity project.

Chapter 5 explores the complexities of communities and civil society and the interfaces between them (Cleaver 1999). Communities and civil society are identified as essential actors in community-focused sustainable development (Staeheli 2008, Seyfang et al 2013, Peck 2015). The chapter considers the importance of the long-term sustainability of projects, such as issues relating to the survival, continuation and diffusion of activities

(Seyfang and Smith 2013, White and Stirling 2013) and the role of donors, cities and local authorities. A conclusion draws together the key findings from the literature review in chapters 3 to 5, making a case for further research, and how I use the literature to guide my analysis.

Chapter 6 describes the story of the research including the methodological approaches and qualitative and quantitative methods used. A number of participants and staff were interviewed over time to build trust and research ongoing issues including project sustainability. Quantitative research included working with the project to statistically analyse a survey of recycling behaviour and collecting data on ongoing participation and outcomes. I also reflect on the benefits and challenges of combining research with a monitoring and evaluation role, while being funded by the project, the dilemmas I faced and the support I received, and how this impacted on the research.

Chapter 7 is the first chapter presenting the empirical findings from the research and provides a detailed review of the outcomes of urban agriculture (UA) activities including reviewing impacts at individual and community levels. The chapter presents voices and individual stories from a number of volunteers and participants involved in activities. UA was a major focus of the research as the most active of the GP activities and I explore four vignettes of activities to identify different types of engagement, impacts for vulnerable people, the extent to which different forms of social capital were developed, and the potential for long-term sustainability of outcomes. The four vignettes focus on: volunteers and the community garden; a family growing project; a city-wide free food event; and a food growing course for refugees.

Chapter 8 is the second empirical chapter and reviews the impacts of the community energy activity on participants, many of whom were vulnerable to fuel poverty. Quantitative research explores the financial benefits for participants with qualitative research presenting the voices of participants on how the community energy activity benefitted them but how they need more long-term support. The chapter also reviews the effectiveness and impacts of other GP activities, including identifying where participants may have benefitted from involvement in more than one activity, with a focus on the stories of four residents. This chapter also begins to compare different approaches used in the implementation of different activities and leads into exploring how project governance impacts on effectiveness and outcomes for communities.

Chapter 9 is the third and final empirical chapter and reviews connections between project governance arrangements, programme effectiveness and long term sustainability in more detail. The chapter explores the critical influence of donors and project intermediaries (Kirwan et al 2013, Tornaghi 2014, Creamer 2015). It also describes the essential impact of internal governance issues, such as partnership arrangements and staff performance, and the relationship between internal project governance issues and the impact of donors. The chapter investigates the long-term sustainability of the different GP activities by examining whether any were sustainable at the end of the three year project, bringing in analysis of institutional governance and policy support. I discuss sustainability in terms of long term survival, continuation, diffusion and scaling-up of activities. A vignette of the volunteers and community garden is explored to describe what happened after the GP project finished in 2015. The chapter also explores some of the reasons why some activities were sustainable and others were not, and analyses influences on sustainability such as: the agency of staff and participants; support from networks, donors, and the Local Authority; and the influence of Central Government. This chapter includes a detailed analysis of the support provided by Hull City Council at strategic and operational levels.

Having described the impacts of the different activities and their sustainability, Chapter 10 is a discussion chapter which explores connections between local activities and wider environmental issues from the perspectives of staff and participants, and whether there is a platform to build on the achievements of the GP project. This analysis is important as connecting project activities to wider actions to tackle climate change was one of the key aims of the Big Lottery Fund - Communities Living Sustainably projects.

Chapter 11 draws together the conclusions for each objective and moves the discussion to more generalisable findings for sustainable place-making. The conclusions aim to answer the key questions guiding the research: What were the impacts? How did governance influence effectiveness and sustainability? How can activities be supported in the long term and what is a realistic role for local government? Most fundamentally this chapter seeks to answer the question: Should sustainable place-making activities be supported? The chapter finishes with overall conclusions including an assessment of how the research contributes to academic theories and broadens knowledge, and recommendation for policy and further research.

Chapter 2) The case study context: the Green Prosperity project and east Hull

2.1 The Green Prosperity project - why it was developed and supported

The Green Prosperity (GP) project was a three year project working with communities in east Hull and which was completed by the end of 2015. GP was one of 12 Communities Living Sustainably (CLS) projects supported by the Big Lottery Fund (BLF) in deprived communities across England. Funding for individual CLS projects was provided for up to £1m and from three to five years from 2014 to 2018 inclusive. Each funded project was managed by a registered charity.

BLF receives 40% of the UK National Lottery funding allocated for good causes and is used to support community groups and charities implementing projects to improve their local communities. 'Awards for All' and 'Reaching Communities' are two of BLF's largest grant programmes (Cabinet Office 2016). BLF described how it funded CLS projects to help communities live in a more sustainable way (BLF 2016). The aims of the CLS projects were to help communities reduce CO₂ emissions and to help people with impacts of climate change where this was an issue. However, BLF was conscious that many people in England were not engaging with climate change and BLF also focused on creating projects that engaged residents in climate change through activities that resonated with people. All 12 of the CLS projects included urban agriculture activities, with fewer projects implementing community energy and eco-enterprise development activities. Four projects also included activities to build communities' resilience to flooding, but not all CLS target communities were suffering immediate impacts of climate change-related events.

Through the CLS projects, BLF also wanted to 'explore the potential for behaviour change and also connections between sustainable living, climate change, poverty, health and well-being' (BLF 2016). This quotation identifies a focus on addressing key issues faced by deprived communities including poverty and poor health and well-being. It also reflects that BLF was adopting a learning approach to identify in what ways CLS projects were making an impact. The CLS projects were not focused on achieving specific deliverable outcomes, but had a focus on providing learning for analysis across the CLS projects. During a CLS workshop, the BLF CLS lead identified that this approach was 'less

compliance-based, but more focused on being supportive, challenging and enabling' and therefore the focus was on learning rather than strict project evaluations. As part of this learning approach, BLF established a learning partnership which included project intermediaries including the New Economics Foundation (NEF), Groundwork UK, and the Energy Saving Trust. These organisations would also provide ongoing support to CLS projects to deliver activities. For instance, Groundwork UK developed a toolkit for urban agriculture activities and the Energy Saving Trust developed a toolkit for community energy activities.

The GP project was managed by a local civil society organisation: Environmental and Management Solutions (EMS) Yorkshire, and was delivered with partners Probe Ltd and the Freedom Centre (BLF 2016). The GP project aimed to 'use *'sustainable living'* as a vehicle to improve the quality of life of residents, and to build more prosperous and coherent communities which will significantly reduce their carbon footprints' (Green Prosperity 2014). The GP project focused on activities including: community energy and household energy use reduction, urban agriculture and grow-your-own food, eco-enterprise development, 'green' home care and waste recycling (BLF 2016).

The project partners

Environmental Management Solutions (EMS) Yorkshire was the lead partner based in Southcoates East ward. EMS was established by the Freedom Centre in 2009 after the completion of the 'New Deal for Communities' regeneration project supported by the UK Central Government. EMS has developed an objective to work with the local community to alleviate food and fuel poverty, and also has a history of improving green spaces including parks and allotments and currently has 4 staff (EMS 2016a). It was identified as the lead partner for the GP project as the only charity in the partnership.

Probe Ltd is also a local civil society organisation, but established as a social enterprise and not a charity. Probe's website states that Probe *'was established in 1996 to address issues relating to high unemployment and deprivation in local communities'*. It has a history of working on job skills training, youth support, housing improvement and supporting people to grow their own food. Probe had six staff members during 2015 (Probe Ltd 2016).

The Freedom Centre opened in 2005 in Southcoates East ward and was established as part of the New Deal for communities by the Preston Road Neighbourhood Development Company (PRNDC Ltd) (Northern Gateways Initiative 2009). It is a community hub for

many HCC and National Health Service (NHS) activities including adult education, a library, an NHS walk-in centre, a stroke support group and also holds a wide range of community and charity events. The Freedom Centre has led to the establishment of a number of local charities including EMS (the lead partner) and Child Dynamix (a local childcare charity).

The project activities

The GP activities were designed to meet the needs of target groups, which were broadly defined as all 20,000 residents of two relatively deprived electoral wards in east Hull: Southcoates East (SCE) and Longhill. The GP project partners were based in Southcoates East and had a history of focusing on regeneration of the area. The project had also agreed to use the East Hull Community Farm (EHCF) in Longhill as a project venue for some of its UA activities. The project also had flexibility to involve local residents from the adjacent Marfleet ward. Parts of Hull alongside the river Hull experienced flooding in 2007, but the GP project did not work in flood affected areas and did not focus on climate change adaptation activities.

Brief descriptions of the project activities as they were implemented are provided below. Detailed critical analysis of the activities and their impacts is contained within chapters 7 and 8.

Urban Agriculture (UA): UA activities included the establishment of a volunteer community garden at East Hull Community Farm, regular volunteer Wednesdays, events and training courses at the farm including family days, a family growing project working directly with 10 families, children's eco-club sessions at schools, and food growing courses including courses targeted at fathers and their children.

A map of UA activities is shown in Figure 2.1 below. Staff from the UA team also played a major part in organising and delivering the Hull Harvest Festival which is a city-wide free food event held annually in October. Probe was responsible for the implementation of the UA activities. However, EMS provided support through managing the volunteer and community outreach aspect.

Figure 2.1) Green Prosperity urban agriculture activities

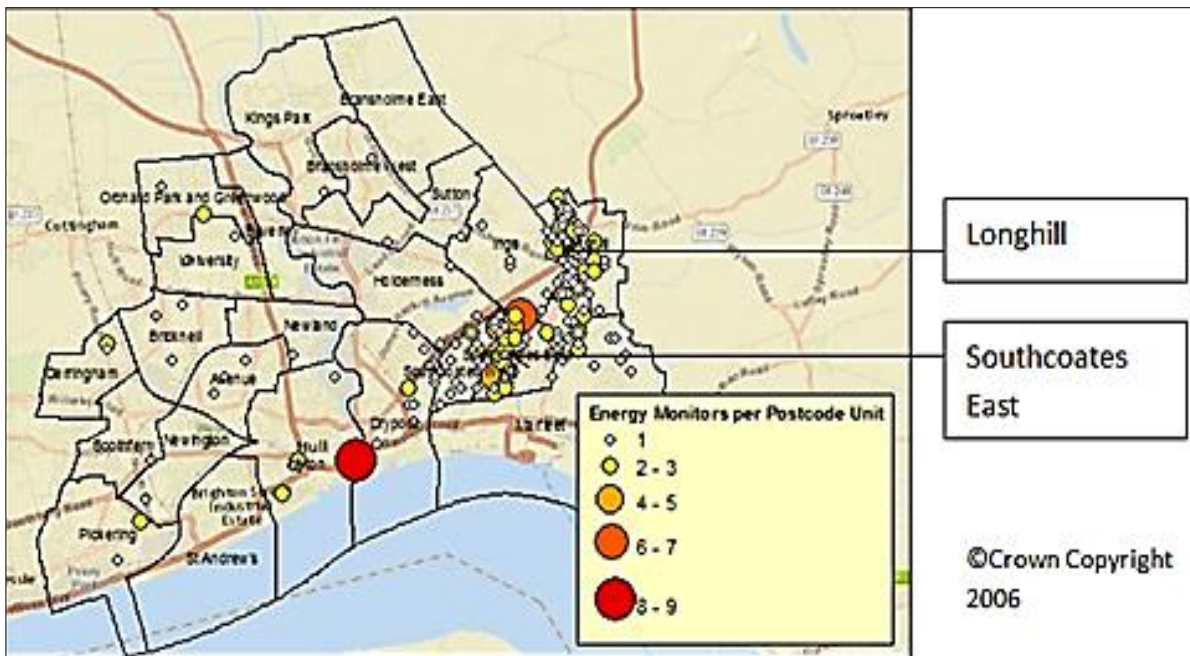
The map below identifies where activities took place including ward name.



Source: Google Maps and GP project data

Community Energy: The community energy activity focused on providing energy monitors to 500 local households to help residents reduce energy usage, energy costs and reduce their carbon footprint. The project used Owl Micro Monitors with a large display which had a range of functions including showing real time increases in usage when appliances are turned on. During the life of the project, GP expanded its support to residents to providing information on tariffs, a power-down plug, energy efficiency advice and information on other schemes and financial assistance, including the warm-home discount (WHD). The WHD is a £140 discount available to some vulnerable people provided directly from energy companies. The community energy activity was managed by EMS. Figure 2.2 below shows the number of energy monitors distributed by postcode and highlights that the main focus of activities was in Southcoates East, Longhill and Marfleet, although energy monitors were provided to residents of other wards when demand from the target wards did not meet supply.

Figure 2.2) Green Prosperity: residents with energy monitors (by postcode)



Source: ONS 2011 and GP project data.

Eco-Enterprises: The GP project also included an eco-enterprise activity to identify and support local green businesses through existing business training courses already provided by Probe in the local community. In addition, the project explored links to local food growing activities. In the final year, the project refocused to mainstream environmental-focused training in existing businesses and training for young entrepreneurs through the Prince’s Trust.

Eco-House: The Eco-House was completed by Probe Ltd in early 2015 as part of the ‘empty homes’ project to renovate empty (void) council houses, using local contractors and apprentices from Hull College. The eco-house was one of 36 renovated properties. The eco-house was a former semi-detached council house in Southcoates East and was renovated to include a wide range of energy saving measures, including solar panels and cavity wall insulation, and interactive information on how to save energy. A range of activities was planned including links to schools and HCC housing services. Volunteers were also engaged to plant a demonstration garden.

Green Home Care (Green-Care): The Green-Care activity was managed by the Freedom Centre with an initial aim to recruit local volunteer carers to provide care to local vulnerable residents. The activity staff focused on internet based learning and support, attempting to work with a range of local communications and healthcare partners.

Waste Recycling. The first stage of developing waste recycling activities was to conduct a recycling behaviour survey of 1,000 respondents to identify levels of recycling. The results showed a very high level of recycling by local residents, including in comparison with residents of other areas of Hull. Therefore activities to increase levels of recycling were not prioritised, in a decision supported by the Big Lottery Fund. The waste recycling activity was managed by EMS.

2.2) Local context of Hull: post-industrial decline, deprivation and regeneration in UK urban areas

Kingston-upon-Hull (more commonly known as Hull) is a Unitary Authority surrounded by East Yorkshire, with the Humber estuary to the south, and has a population of approximately 256,000. Hull is relatively far from other major cities in the UK context (approximately 60 miles to Leeds and 70 miles to Sheffield by car).

Hull is an important historical city: 'for over 700 years Kingston upon Hull has played unique and crucial roles in the histories of Britain and northern Europe' including as a centre of trade, and a centre of political importance (Starkey et al 2017: 1). For instance Hull 'was pivotal to the abolition of slavery in the British empire in 1833, to prompting the English Civil War in 1642, and to resisting the blitz on British cities' during World War Two (Starkey et al 2017: 1). Hull suffered the consequence of the blitz, and was the second most bombed city in Britain after London, with an estimated 90% of buildings being damaged (BBC 2011).

Hull also has a strong sense of community and has been described as a city of poetry and a city of sport and there are many efforts to develop and showcase the city such as through the successful City of Culture 2017 bid (Starkey et al 2017). In addition, HCC is focused on the city becoming a centre of the Renewable Energy Industry and has been successful in attracting Siemens to invest in the city (Jonas et al 2016). Siemens will form a central part of Hull's Green Port Development which is located in the east of the city along the Humber Estuary (Jonas et al 2016). It is hoped that the Green Port Development and investment from Siemens could create up to 8,000 jobs (Jonas et al 2016). However, it is unclear to what extent the plans for the renewable energy industry will be affected by the 2016 referendum vote for the UK to leave the European Union (Jonas et al 2016). In addition, Hull City Council HCC has a history of being proactive in anti-poverty and food

security projects, such as through the pioneering *'Eat Well Do Well'* (EWDW) initiative in 2004 to improve nutrition in schools through providing healthy meals and snacks for children up to 11 years old (Colquhoun et al 2008). Hull also has a wide range of local food growing projects and in 2015 HCC supported a CSO-led initiative, the Hull Harvest Festival, which brought many food growing projects together to cook free food in the city. Based on the increasing food growing movement in Hull, Hull City Council is developing a bid to become a 'sustainable food city' (Sustainable Food Cities 2017).

However, Hull has experienced post-industrial decline and Hull is described as a structurally disadvantaged and declining maritime port city, with high levels of unemployment after the reduction in North Sea fishing and dock labour (Atkinson 2008, Brown and Lishman 2010, Jonas et al 2016). Unemployment in 2015 was 8.8% compared to a national average of 5.2%, one of the highest unemployment levels in the UK (NOMIS 2015), although Jonas et al (2016) calculate that unemployment levels in Hull could have been as high as 13.5% in 2014.

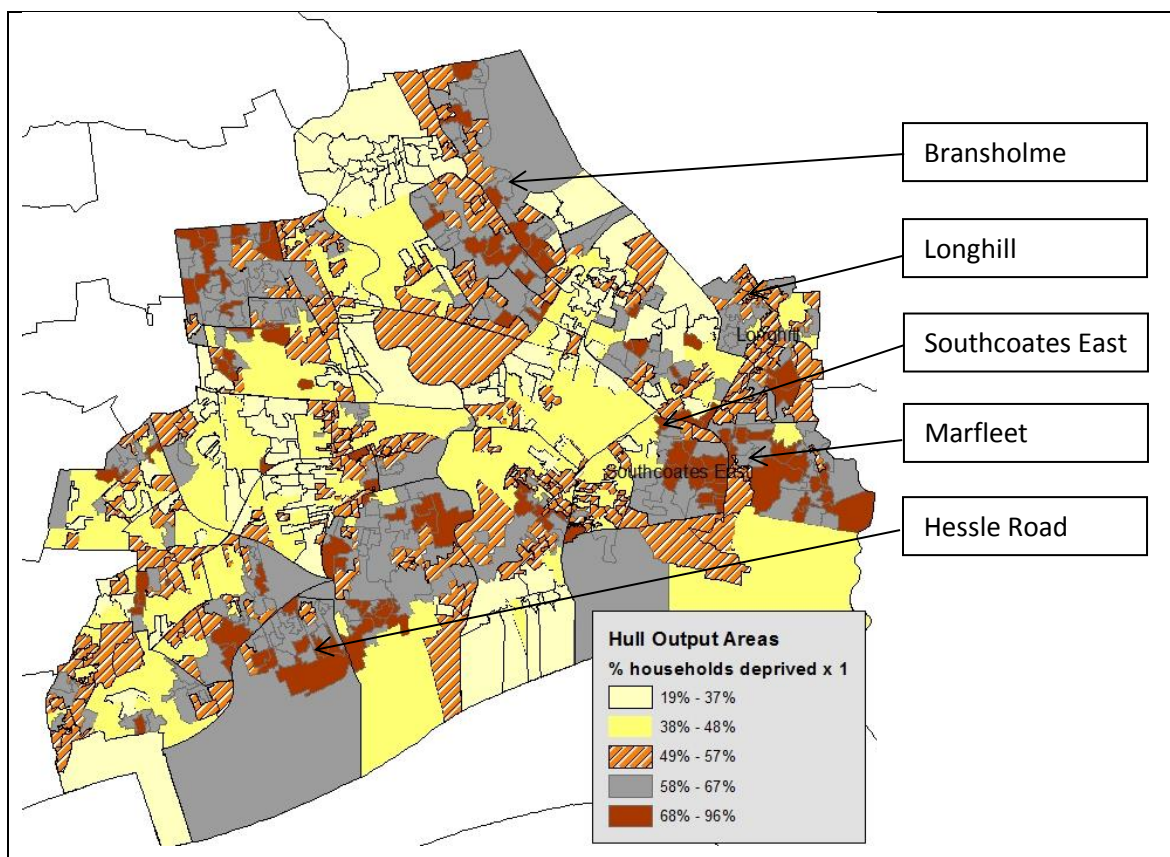
In 2015, Hull was also identified as the third most disadvantaged Local Authority (LA) area in the UK having been the 5th most deprived LA in 2010 (ONS 2015). The deprivation index considers income, employment, health and disability, education, skills and training, barriers to housing and services, the living environment, and crime (ONS 2015, Porter et al 2015). In Hull consequences of deprivation include comparatively high levels of mental health issues, alcohol-related issues, and people requiring care (Ayton et al 2003, Fleming 2011, Porter et al 2015). It is also estimated that 13% of Hull's residents live in fuel poverty (Porter et al 2015), and there is increasing evidence of food poverty (FareShare 2015).

Hull is a predominantly white working class city. The other two local authority areas ranked lower than Hull in the 2010 indices of deprivation are Middlesbrough and Knowsley, which are also traditionally white working class urban areas (ONS 2015). It is argued that white working class areas in the UK have particular forms of disadvantage including worklessness, low educational attainment and political disenfranchisement (Ayton et al 2003, ONS 2015). For instance, white working class areas voted heavily for the UK to leave the European Union (EU) in the 2015 referendum, with many observers arguing that the white working class vote to leave the EU was associated with lack of voice in political decision making (Guardian 2016a, Jonas et al 2016). However, there is an increasing Black and Minority Ethnic (BME) migrant population in Hull, which has risen from 3.3% in 2001 to 10.3% in 2011, including an increasing population of refugees

through the Home Office and Refugee Council supported Gateway programme (Platts-Fowler and Robinson 2015).

Platt (2011) describes that in Hull ‘the worst poverty isn’t found in the historic city centre, but on the estates on the outskirts’ and identifies two housing estates: Bransholme and Preston Road as examples of poverty. Figure 2.3 below maps deprivation information from the 2011 Census and identifies the high levels of deprivation in Bransholme (north Hull) Preston Road in east Hull and Hessle Road in west Hull (ONS 2011). The Hessle Road community had grown around Hull’s fishing industry which has decline since the 1970s.

Figure 2.3 Deprivation in Hull (% households classified as deprived in 2011 by lower super output area level in HCC Wards). Bransholme in the north, Hessle Road in the west, and Longhill, Southcoates East and Marfleet in the east are highlighted.



Source: ONS (2011).

The Preston Road estate in east Hull was built between the 1920s to 1940s due to a general increase in the population size in Hull and the increasing importance and scale of the docks industry (Allison 1969). Then other housing estates were built on the northern and eastern outskirts of Hull (including Bransholme and Bilton Grange and Longhill in

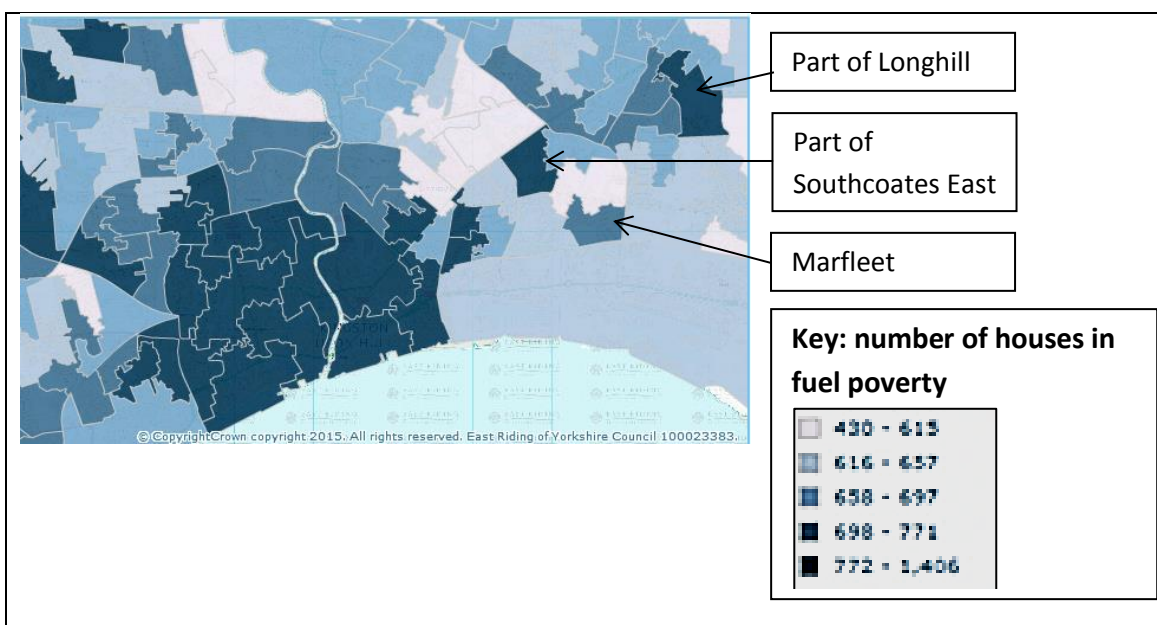
Longhill ward) in the 1950s and 1960s to moved people from overcrowded areas with poor housing, areas affected by WW2 bomb damage and suffering from insanitary conditions (Starkey et al 2017) such as Hessle Road and the City Centre. However, this process saw the dismantling of long standing communities (Starkey et al 2017).

The local context in east Hull

The Green Prosperity project was operating in one of the most deprived cities in the UK, with east Hull, including Longhill and particularly Southcoates East, being considered as particularly deprived (Census 2011, ONS 2015). Areas of east Hull have a large percentage of inter-war and post-war council housing. (Bell and Stanley 2005, Atkinson 2008, Brown and Lishman 2010). After the development of the Preston Road estate in Southcoates East, the Bilton Grange estate was built in 1955 and Longhill in 1958 (both in Longhill Ward), and the Greatfield estate in Marfleet was built in 1960. Geographically east Hull cannot be described as ‘inner city’, which is a term often used by policy makers to describe disadvantaged urban areas (Wallman and Buchanan 1982). East Hull is not densely populated and homes are predominantly semi-detached or terraced houses with gardens.

Figure 2.4 below maps fuel poverty by lower super output area level in Hull with Longhill and Southcoates East having pockets of households in fuel poverty. There are no food poverty data available for ward level or below.

Figure 2.4) Number of Houses in Fuel Poverty in Hull 2012



Source: Humber Data Observatory

Southcoates East is centred around Preston Road and the Preston Road estate and is considered to have a strong community identity (Northern Gateways Initiative 2009, Brown and Lishman 2010, Hull Daily Mail 2014). For instance, White & Green (2009: 55) research attachment to place among young people in different areas of the UK including Preston Road and concluded that young people were particularly attached to the local area:

‘The unwillingness of some young people to travel out of the immediate area appeared to be justified on the grounds that it would involve breaking out of a comfort zone ‘I like Preston Road [the local name for the east Hull neighbourhood] because you know where everything is and you know people. If you move you have to find things out (female, seeking employment, Hull)’.

Due to clear community boundaries and particularly high levels of deprivation, the Preston Road estate in Southcoates East has been the target for a number of government and civil society interventions and improvements (Krasner & Copeland 2004, Larner and Craig 2005, Northern Gateways Initiative 2009). Preston Road was one of 39 areas in the UK chosen for the Labour Government’s flagship New Deal for Communities regeneration programme and received approximately £55m of inward funding and investment (Krasner & Copeland 2004, Platt 2011). The New Deal began in 2000 and was by the Preston Road Neighbourhood Company (PRNDC) (Krasner & Copeland, 2004). Platt (2011) describes that the council had "earmarked Preston Road as the estate most desperately in need of investment or, indeed, a completely new start". Krasner & Copeland (2004: 8) comment that ‘the Preston Road estate....with its population of 6085, has reflected the classic profile of an inner city deprived community: high unemployment, those in work on lower than average wages, low educational attainment, high turnover of residents, many boarded up properties and general evidence of environmental neglect’. Krasner & Copeland (2004) report that before the New Deal programme started, Preston Road had a range of negative indicators compared to the rest of Hull including unemployment at 19%, double the city’s average, relatively low school attendance, poor health indicators including deaths from lung cancer. The Preston Road estate was also targeted for domestic violence prevention work in early 2000 due to the high number of incidents (Bell and Stanley 2005). However, crime rates were relatively low in contrast to many outside views (Krasner & Copeland 2004). Krasner & Copeland (2004) also identified that Preston Road had

inadequate community facilities (including inadequate community centre and retail and had no police station or primary health care facilities).

The New Deal led to the development of the Freedom Centre as a community hub including a library and primary health care services, a police station, shopping facilities including a supermarket. There is also ongoing replacement of pre-and post-war council housing (which was identified as poor housing stock) with new housing, and the opening of a newly built school (Northern Gateways Initiative 2009, Brown and Lishman 2010, EMS 2016a).

In contrast to Preston Road, Longhill has less of a strong community identity. Longhill is split into different residential areas (including Bilton Grange and the Longhill estates) by main roads and has not been the focus of regeneration projects to develop a strong community centre. However, while the Preston Road estate is described as having a strong community identity (White and Green 2009), an increasingly transient population was recently identified as a significant negative trend affecting the area in terms of people not establishing roots, investing in or helping improve the area (EMS 2016b).

Consequences of deprivation in the UK: punitive welfare policies, food and fuel poverty.

Deprived urban areas, including Hull, suffer a range of disadvantage relating to poor quality living environments including poor housing, high levels of unemployment and crime, and poor education and health (Ayton et al 2003, Bell and Stanley 2005, Porter et al 2015). Child and adolescent mental health issues are also higher in disadvantaged areas (Murali and Oyebode 2004, Marmot and Bell 2012,).

It is also argued there is a link between increasingly punitive Department of Work and Pensions (DWP) welfare policies and increasing poverty and mental health issues (Crisp 2015, Snell et al 2015). Recent welfare policies have included reducing welfare payments including housing benefit, introducing benefit sanctions for people not satisfying requirements to find work, and benefits reassessments moving some people previously classified as long term sick and disabled to benefits linked to finding work (Crisp 2015, Snell et al 2015). It is argued that these benefits changes have been introduced as Central Government has tried to reframe unemployment and worklessness as problems caused by individuals rather than by lack of employment opportunities (Crisp 2015). The introduction and rollout of Universal Credit (a new benefits system affecting claims, assessments and payment methods) has also led to long delays between benefit payments. Lambie-

Mumford (2013), Perry et al (2014) and Snell et al (2015) highlight how punitive welfare policies have led to increases in financial difficulties and debts, with consequent rises in food and fuel poverty as people cannot afford to buy food or heat their homes. There are a range of critical health and well-being issues caused by both punitive welfare policies and the consequent rise in food and fuel poverty, including exacerbating health issues for vulnerable people such as stress and anxiety (Liddell and Morris 2010, Sovacool 2015, Snell et al 2015).

Lambie-Mumford (2013) and Perry et al (2014) identify punitive benefit policies including benefit reassessments and sanctions are the leading cause in the increasing use of food banks. The Trussell Trust (2017: 1), a faith-based CSO providing food parcels, stated that 'Foodbanks in our network provided 1,182,954 three day food supplies between 1st April 2016 and 31st March 2017, a 6% increase from the previous year, and issues with benefits continue to be the most common cause'. 2015/ 2016 was the first year to exceed 1m food parcels and over 400,000 food parcels were provided for children under 16 (Trussell Trust 2016). A charity in Hull that provides free meals across the city to small church groups and charities reported an increase in in the meals they provide per day from 2780 in 2012 to 4270 in 2015, an increase of over 50% (FareShare 2015).

Fuel poverty is also increasing in the UK and is particularly affecting vulnerable people including older people, people with disabilities and people on low incomes (Walker and Day 2012, Snell et al 2015, Sovacool 2015). Saunders et al (2012: 79) state that 'a household is said to be in fuel poverty if the ratio of fuel cost to income is greater than 10%, based on modelled energy needed to achieve a satisfactory heating regime' and therefore are described as not being able to afford to heat their house adequately. In Hull the number of households affected by fuel poverty increased from 22% in 2005 to 37% of households in 2009 (HCC 2016).

Fuel poverty is driven by three main factors: inefficient housing; low incomes; and rising fuel prices (Saunders et al 2012, Walker and Day 2012, Sovacool 2015). Liddell and Morris (2008) identify that a large percentage of fuel poor people live in houses that are cold and damp, damaging health and causing excess winter deaths. Snell et al (2015) also raise the significant relationship between pre-payment meters and fuel poverty. Pre-payment meters have higher tariff rates and higher emergency rates when running low on credit and when credit on the pre-payment meter runs out, many people cannot afford to heat

their homes (Snell et al 2015). Many vulnerable people have to use pre-payment meters as they may not pass the credit checks required to qualify to pay by direct debit.

Food and fuel poverty are recognised as forms of social injustice, underpinned by distributional injustice, procedural injustice and injustice through lack of recognition (Walker and Day 2012, Snell et al 2015). In relation to fuel poverty, distributional justice is identified as the unequal distribution of energy services (Walker and Day 2012). Walker and Day (2012) also highlight procedural justice issues which need to be tackled especially a lack of information on different sources and choices of electricity and tariffs, and the different grants and other assistance available. Both Walker and Day (2012) and Snell et al (2015) identify that vulnerable people suffer from a further injustice in that decision makers are not recognising the needs of vulnerable groups, and there is little participation from vulnerable groups in decision making.

In addition, Milbourne (2012) uses an urban political ecology lens to describe how urban UK communities can suffer from a shortage in natural spaces and environmental assets and how this then becomes a cause of further disadvantage. Evidence of environmental disadvantage in poorer urban areas of the UK is also found in an empirical study by Fairburn et al (2009: 139) who identify that 'deprived areas have poorer environmental quality and in particular the most deprived areas often have the poorest environments'. Thompson et al (2012: 221) conducted health research in the UK and state that 'more green space is linked to less stress in deprived communities'. Thompson et al (2012) also suggest that increasing access to green space has more beneficial effects on stress in deprived communities compared to more affluent communities.

2.3) Conclusion: Setting the scene for sustainable place-making in east Hull

This chapter has described the case study context. Hull is a relatively deprived post-industrial city in the UK, with high levels of unemployment, and east Hull is one of its more deprived areas. Local civil society organisations formed a partnership to use the opportunity of the BLF CLS funding to try to address key issues in the local area. The GP project had a key focus on addressing economic issues, but also aimed to achieve social and environmental outcomes through the development of different sustainable development focused activities including urban agriculture, community energy, business development, waste recycling and an innovative activity to support local carers. The

project partners also commissioned research to identify the impacts of the GP project in the local community and help them learn lessons for future interventions. The collaborative nature of the research provided the basis for a detailed case study example of sustainable place-making, using both qualitative and quantitative data collected during the project and after completion. The research contributes to a growing body of research on sustainable place-making including urban agriculture and community energy. A review of relevant areas of literature follows in chapters 3 to 5.

Chapter 3) Climate change, sustainable development and the role of cities

A key aim of the Big Lottery Fund (BLF) Communities Living Sustainably (CLS) projects was to engage people in tackling climate change through community-level sustainable development focused activities. Chapter 3 begins the literature review and explores concepts of sustainable development and its role in tackling climate change. It also explores the role of cities in leading responses, including supporting community-level responses, comparing examples from North America and the UK.

3.1) Sustainable development as a response to climate change

The world is facing an increasing threat from climate change and urgent action is required (IPCC 2014). There is considerable debate on the levels of fossil fuels emissions passed before a tipping point is reached from which the planet cannot return to its current state (Stern 2007, Chatterton and Cutler 2008). For instance, Chatterton and Cutler (2008: 14) argue that:

‘there is little point in creating a sensible plan for using the remainder of easily available fossil fuel supplies if in the process the environment is pushed over its tipping point of dangerous climate change, defined as global warming of 2 Celsius above pre-industrial levels. There is a 50% chance of this kicking in at about 450ppm [parts per million] of carbon in the atmosphere. Energy use at its current rate, globally and in the UK, would bring us head to head with such limits in the next decade or so’.

The Intergovernmental Panel on Climate Change (IPCC) was established by the United Nations to assess and present the ongoing climate change scientific findings, with their most recent report issued in 2014 (IPCC 2014). The IPCC (2014: v) does not identify limits or a tipping point, but is unequivocal in its findings on the impacts of climate change and the urgency required for action on climate change, including immediately limiting greenhouse gas emissions: ‘Human influence on the climate system is clear, and recent anthropogenic emissions of green-house gases are the highest in history. Recent climate changes have had widespread impacts on human and natural systems’.

The IPCC is viewed as an authority on presenting the science of climate change (Van der Sluijs et al 2010). However, it is argued that the IPCC has been established to develop a political consensus around action focusing on government-led responses favouring economic growth based and top-down scientific solutions (Van der Sluijs et al 2010). Whereas these solutions have worked for some smaller scale environmental issues such as ozone depletion, these solutions have not worked for climate change (Dyson 2006, Chatterton and Cutler 2008, Bulkeley 2015).

A focus on government-led solutions reduces the scope for more democratic or radical alternatives to tackle climate change ignoring perspectives from smaller developing countries, activists, academics and civil society organisations (Chatterton and Cutler 2008, Van der Sluijs et al 2010, Pearsall et al 2012). A major issue is that the countries emitting the most CO₂ are not the same countries that are the most vulnerable to the immediate consequences of climate change (Stern 2007, Agyeman 2008, Chatterton and Cutler 2008). For instance, Mason (2008: 8) argues that there is a growing ‘idea of “accountability deficits”’ in relation to environmental degradation where ‘global governance priorities fail to correspond with the interests of those directly affected by social and ecological harm’. Criticisms from these perspectives challenge a neo-liberal focus on economic solutions to climate change. Neo-liberalism has been defined as ‘an economic and political ideology that eschews government intervention, and privileges economic rationalities, free-trade, and market based responses to environmental and social problems’ (Andree et al 2015: 1452). Peck (2015: 556) also argues that neo-liberals aim for long term changes in society to influence everyday behaviour: ‘Neoliberalism can be described as an umbrella term for the diverse ideologies, policies and practices associated with liberalising global markets and expanding...capitalist power relations into areas of social, political and biophysical life’.

The need for sustainable development balancing environmental, social and economic aims

The need for a more balanced approach to tackling environmental issues including climate change was raised in the Brundtland report in 1987 which was commissioned by the United Nations (UN) (WCED 1987). The Brundtland report provided a framework for prioritising ‘Sustainable Development’ that combines economic, environmental and social aims and ‘that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (WCED 1987: 16). In the two quotes below,

Brundtland argues strongly for a focus on social issues, the inadequacies of scientific focused responses and the need for democratic solutions to environmental problems including climate change (WCED 1987: 6 and 7):

‘The present decade has been marked by a retreat from social concerns. Scientists bring to our attention urgent but complex problems bearing on our very survival: a warming globe, threats to the Earth's ozone layer, deserts consuming agricultural land. We respond by demanding more details, and by assigning the problems to institutions ill-equipped to cope with them.’

‘When the terms of reference of our Commission were originally being discussed in 1982, there were those who wanted its considerations to be limited to "environmental issues" only. This would have been a grave mistake. The environment does not exist as a sphere separate from human actions, ambitions, and needs, and attempts to defend it in isolation from human concerns have given the very word "environment" a connotation of naivety in some political circles’.

Many analysts link social aims to achieving equality and social and environmental justice (Haughton 1999, Chatterton and Cutler 2008, Tornaghi 2014). Chatterton et al (2012: 2) identify the importance of climate justice for those most affected by climate change to ‘contest the unequal impacts of climate change, both geographically and socially’. However, the call for social sustainability is wider than a focus on people immediately affected by climate change and also includes marginalised people across the world including those in the global north that may not suffer immediate environmental crisis (Agyeman 2008, Milbourne 2012). There are a wide range of examples of social injustice in the UK, such as food and fuel poverty for marginalised people (Fairburn et al 2009, Walker and Day 2012, Perry et al 2014). In addition, deprived communities the UK can disproportionately suffer environmental injustice through lack of access to green spaces and a poor local environment (Agyeman 2008, Fairburn et al 2009, Milbourne 2012).

Despite the Brundtland report and subsequent research, neo-liberal economic growth focused policies have continued to dominate and there was little change resulting from continuing governmental climate change meetings held in Bali 2007, Copenhagen 2009, and Rio 2012 (Chatterton and Cutler 2008, Pearsall et al 2012, McClean and Boren 2015). It is also argued that even where economic, social and environmental aims are presented as

equal, economic objectives take priority when tensions become evident (Haughton 1999, While et al 2004, Walker 2016).

At the Paris meeting in 2015, an agreement by all 196 countries to find steps to limit temperature increases to less than 2% was hailed as a success by many stakeholders including governments and civil society organisations (The Nature Conservancy 2016). However, other stakeholders describe the Paris agreement as weak and unambitious and it is too early to identify whether this agreement will be effective. At the time of writing, the United States (US) has withdrawn from the Paris Agreement including from targets to reduce emissions and from helping smaller vulnerable countries with climate change adaptation funding. While many countries have reaffirmed their commitment to the Paris agreement, the US has focused on revitalising extractive industries to boost economic outputs and there is a fear that other countries could follow suit (The Guardian 2017a). Tensions between economic development and social and environmental outcomes are also evident in other countries that are committed to targets. For instance, austerity focused government policies, such as in the UK, have resulted in weaker environmental and social policies (Larner and Craig 2005, Andree et al 2015, Tornaghi and Van Dyck 2015).

Social sustainability, place-making and engagement

Calls for social sustainability also have direct links to wider engagement and participation, both in terms of helping people affected by social injustice but also with a key focus on involving people in the fight against climate change (WCED 1987, Agyeman 2008). Society wide participation and engagement are essential to reduce levels of consumption to meet the challenge and scale of environmental problems (Gray 2002, Seyfang and Smith 2007, Holden and Larson 2015). Creamer (2015: 981) identifies the extent of the cultural and behaviour change that would be required to tackle climate change:

‘The desire within capitalist economies to maximise the production and consumption of goods and services in order to generate continual economic growth is exerting unsustainable pressure on the earth’s ecosystems....whilst technological solutions have a crucial role to play ‘it is widely accepted that ‘substantial lifestyle and cultural change, especially in the more developed world will need to take place’.

Relating to engaging broad sections of the population in transitioning to low carbon economies, there are strong arguments for low carbon approaches to living such as

developing a green economy focusing on de-growth, localisation and social sustainability (Chatterton and Cutler 2008, Unsworth et al 2011, Bauhardt 2014). Similar to increasing calls for a focus on social sustainability within sustainable development, analysis of the 'Green Economy' has increasingly focused on decarbonisation, de-growth and localised systems of production which also emphasise health and well-being as part of social justice and sustainability (Tornaghi 2014, Bulkeley 2015, Bauhardt 2015). For instance, a shorter working week, could become an alternative to the dominant 40 hour a week employment model, which is not working for many marginalised people, including those caring for relatives and those affected by punitive welfare to work policies (Walker and Day 2012, Lambie-Mumford 2013, Bauhardt 2014). Tornaghi (2014: 12) makes a strong link between community-level sustainability-focused activities, such as UA and community gardening, and a green economy describing UA as 'an intersection between urban and social environments as part of an alternative vision of post- capitalist de-growth inspired urban living'. Aiken (2012: 91) argues for a focus on supporting community-level sustainable development activities given 'the very public failure of high-level discussions on carbon reduction, most notably the Kyoto protocol and COP 15'.

3.2) Sustainable development: the role of cities and local authorities

The requirement for 'sustainable development' with a focus on social, environmental and economic aims was reinforced by the Rio Conference in 1992 which established Local Agenda 21 (LA21) (Bulkeley 2015, Creamer 2015, den Exter et al 2015). LA21 also emphasised a focus on local actions in cities and identified an important role for local authorities in sustainable development and action against climate change (Bulkeley 2015, Creamer 2015, den Exter et al 2015). Chatterton and Cutler (2008: 27) identify that 'Agenda 21 was heralded as the beginning of sustainable planning at a council level.....this global initiative that started at the 1992 Rio World summit for sustainability had so much potential'.

This role for cities was supported for a range of reasons. Urbanisation is a key population trend with more people living in cities than outside cities (Ampuero et al 2015). The trend of urbanisation also provides scope for the planet to become greener with cities increasing population density and producing lower per capita carbon emissions than rural areas (Ambrosius and Gilderbloom 2011). Cities are also places of inequality and marginalisation

and therefore an important focus for social sustainability (Milbourne 2012, Walker 2016). Milbourne (2012) argues for a focus on urban environments as ‘the city is the place where socio-environmental problems are experienced most acutely’. Bulkeley (2015) identifies that cities provide scope to bring together a range of state and non-state actors, including local authorities (LAs) and CSOs that are already trying to develop community-level activities. Jonas et al (2016) identifies that cities are more likely to develop and innovate climate change actions than national governments.

However, since Rio 1992 many analysts have been disappointed by outcomes from cities and it is argued that cities have not been provided with clear responsibilities, policy support and funding (Pearsall et al 2012, Bulkeley 2015, den Exter et al 2015). It is argued that lack of responsibility and funding has continued after recent global discussions including Rio +20 in 2012. Pearsall et al (2012: 935) state that ‘despite Ban Ki-moon’s exhortations that the ‘local is global and global is local’ and that cities play an important part in achieving sustainability, it would seem that Rio +20 produced nothing more than business as usual’. Bulkeley (2015) identifies that the COP21 discussions in Paris in 2015 could be an important step to help cities realise their ‘*climate change potential*’ but that key questions still remain to be answered about the roles and responsibilities of cities and which stakeholders will be involved with no binding actions identified.

Examples of city support for sustainable development and community-level activities.

A review of case study literature reveals a wide range of different sustainable development policies and outcomes between cities. Contrasting performance indicates a range of important differences between critical factors such as political will, support from national government, resources, and skills and experience (Staheli 2008, Adams et al 2015, Walker 2016). There are also clear differences between larger more prosperous North American cities and smaller declining UK post-industrial cities (Jonas et al 2016), which are explored in more detail below.

Research into North America finds larger entrepreneurial cities are focusing on sustainable development as a concept within their strategies and planning (Holden 2011, McClean and Boren 2015, Jonas et al 2016). McClean and Boren (2015: 1489) identify that ‘Interest in sustainable development has rapidly gained influence in planning approaches [of local government]’. However, there are also differences between North American cities, with larger prosperous cities with resources such as Vancouver, Toronto and New York (NYC)

providing more possibilities for sustainable development activities than declining post-industrial cities such as Detroit (Staeheli 2008, Crane et al 2013, Walker 2016). The development of strategies have also led to positive outcomes, for example Hardman and Larkham (2014: 402) identify that Toronto introduced a food charter in 1999 and since then the 'the city has rapidly expanded its UA provision, with community gardens, allotments and more radical growing techniques'.

However, a potential consequence of embracing sustainable development is a '*sustainability fix*' where economic, environmental and social aims are presented as win-win scenarios (While et al 2004, Temenos and McCann 2012, Walker 2016). The '*sustainability fix*' can also be seen to be employed as a method to reduce conflict between different stakeholders as it can be argued that all priorities are included in LA policies (Temenos and McCann 2012).

Cracks emerge in the '*sustainability fix*' when the need to raise income results in projects focusing on economic growth becoming prioritised over those with environmental and social outcomes. A key issue is that globally, LAs are under pressure to increase revenue. Property and business taxes are key sources of income, creating an incentive to increase property demand and values (McClellan and Boren 2015, Walker 2016). Mason and Montalto (2015) describe how supporting community gardens increased property prices in NYC by up to 10%. In addition, Walker (2016) analyses LA responses to sustainable development through the lens of UA in contrasting cities of Vancouver and Detroit. Walker (2016) identifies how both Vancouver and Detroit supported UA and community gardens, but that Vancouver's main priority was to try to expand middle class areas of the city and increase the value of properties, while Detroit's was to leverage economic investment.

It is argued that LAs have supported UA and community gardens in the short term, but with a view to greening the city to increase inward investment and development (Staeheli 2008, Sadler et al 2015, Purcell and Tyman 2015). There are examples where increased investments into an area have then led to evictions of community groups and this can negatively affect marginalised residents of poorer areas, including Black and Minority Ethnic (BME) populations, who try to protect and use green spaces (Staeheli 2008, Purcell and Tyman 2015, Walker 2016). Purcell and Tyman (2015) identify a case where a BME community farm group in Los Angeles was evicted in favour of land development. Purcell and Tyman (2015: 1142) bring in a focus on racial discrimination and identify that Los Angeles land use decision making '*systematically benefits white neighbourhoods rather*

than non-white ones'. Walker (2016: 177) is critical of Vancouver and Detroit's development plan's asking 'for whom will the city be transformed? Whose interests will be given priority in the inevitable conflicts inherent in this or any plan for redevelopment?'

An important aspect of generating investment is that cities promote themselves as green to compete for investment against other cities (Jonas et al 2016, Walker 2016). Performance indicators and targets are an important tool in this competition and while they can be a valuable tool for identifying poor performance, a number of problems are associated with their emergence. Targets can be generic and not relevant to the local context, cities can become too concentrated on targets and lose focus on working through complex issues, and the focus on generating data and certifying targets can be resource intensive taking resources away from project implementation and also putting cities with less resources at a competitive disadvantage (McCann 2013, Bulkeley 2015, Walker 2016). McClean and Boren (2015) argue that consequently many cities focus on sustainability and being green in strategies can have little meaning at a practical level.

New York City (NYC) has been identified as a valuable case study in how cities embrace sustainable development. In particular NYC is a city with a large number of UA initiatives such as community gardens (Staeheli 2002, Staeheli 2008, Purcell and Tyman 2015). However, NYC has an ambiguous history in supporting community gardens, with many community gardens threatened by property development and operating in short term land leases (Staeheli 2008, Purcell and Tyman 2015). For instance, Purcell and Tyman (2015: 1139) identify that New York City authorities established an umbrella organisation to support 250 community gardens which 'offers some useful protection and legitimisation to the gardens so it allows gardeners to focus more on necessary and everyday tasks. But this protection is by no means Iron Clad: the leases contain the stipulation that gardens can be removed with 30 days' notice [and] gardens have been lost to real estate development over the years'. A review of NYC sustainability-focused action plans in 2016 show a focus on economic development as the priority with the potential relegation of environmental and social concerns, and there is no mention of supporting the large number of community gardens to provide healthy food or open spaces:

'Making our neighborhoods truly sustainable requires place-based thinking that brings about access and opportunity for all New Yorkers. It means identifying ways to provide more public transit options, increase housing choices and enhance employment opportunities at all income levels and for all communities. It means

cultivating neighborhoods that contain a vibrant mix of uses, including retail that offers healthy foods – a community asset missing from many neighbourhoods – and other services within walking distances of neighborhoods’ (NYC 2016).

Case study based research in the US and Canada presents a more pessimistic view than arguments identifying a promising role for cities in the fight against climate change, especially considering that cities in North America are more advanced in supporting sustainable development than cities in the UK and Europe (Bulkeley 2015, Van Hjerpe 2015, den Exter et al 2015).

UK cities support for sustainable development

Holland (2004) argues that LA21 did not have an impact in the UK due to differences between signing an international agreement and following this through to implementation. Implementation has been hampered by lack of political support, unclear policy direction, and lack of resources (Holland 2004, White and Stirling 2013, Franklin and Marsden 2015). Lack of political will at a national level affects priorities, capacity and resources at a local level (Den Exter 2015, Hjerpe et al 2015). In particular LAs in the UK have been severely affected by reduced budgets from Central Government and Jonas et al (2016) identify how LAs in post-industrial cities struggle to prioritise environmental policies when they need to focus on job creation and income generation. Lack of political will and resources at a local level then translates to an absence of strategic support for day-to-day decision making where many community projects need support, such as for accessing or protecting land (Den Exter 2015, Hjerpe et al 2015, Mathers et al 2015).

Holland (2004), Franklin and Marsden (2015) and Mathers et al (2015) argue that LAs should do more to support local sustainability actors and activities. Even where there are few financial resources to support strategies LAs could involve actors in developing strategies to guide ongoing decision making and planning, such as in land use planning. However, support for local community or grassroots activities is largely absent in local authority strategies. Where strategies do exist there is a sharp disconnect between paper based strategies and what is happening on the ground, and there is a lack of joint working between LAs and civil society groups (Tornaghi 2014, Franklin and Marsden 2015, Jonas et al 2016).

Evidence from UK local authority strategies

To evaluate support for community-level activities, the climate change strategies or sustainable development strategies of Leeds, Liverpool, Manchester and Sheffield were reviewed as examples of climate change strategies by LAs in large post-industrial northern cities in the UK, with Liverpool also considered a post-industrial maritime port city like Hull. Hull is also considered as the focus of the research. Brighton and Bristol are also reviewed as good practice examples highlighted in a range of literature (Tornaghi 2014, Franklin and Marsden 2015, Adams et al 2015). The focus of the review was to identify documented support for UA and community energy as examples of community-level sustainability-focused activities.

In general, the UK local government climate change strategies largely focus on top-down technocratic solutions with little focus on grass-roots community focused initiatives. There is no mention of UA in the climate change strategies of northern post-industrial cities of Hull, Sheffield, Leeds or Greater Manchester. The strategies of these cities focus on reducing emissions through transport, large scale renewable energy projects, protecting existing green spaces and through education in schools (Hunt and De Laurentis 2015, HCC 2010, LCC 2012, GMCA 2012, SCC 2016). In contrast, the Liverpool City Council Climate Change Action plan does have a section on communities and supporting local sustainability-focused activities such as UA (Liverpool City Council 2009). Bristol includes a focus on local food production as a way of reducing carbon emissions with links to a good food plan that includes objectives around community gardening (Bristol City Council 2013). Brighton and Hove have set out a 'One Planet Approach' which includes links to a Sustainable City Action plan and which identifies the role of local food production (Brighton and Hove City Council 2013).

However, even where UA is included in food charters or sustainable development plans, the focus is often on local food as an output benefitting food security and health, but not health and well-being benefits from participation in community gardening and how it supports ecologically sound urbanisation (Milbourne 2012, Hardman and Larkham 2014, Purcell and Tyman 2015). The focus on food as an output rather than a beneficial social activity can result in a lack of focus from LAs on supporting sustainable place-making (Franklin and Marsden 2015).

In contrast, the climate change strategies of Greater Manchester, Hull, Leeds and Sheffield do include a focus on renewable energy and energy efficiency schemes. This focus is in line with self-promotion for investment and regeneration (Bridge et al 2013, Jonas et al 2016, Walker 2016). For example Bridge et al (2013: 337) comment that 'there are plenty of examples of places around the world promoting themselves as a hub for low-carbon development, where regional economic fortunes are hitched to becoming an important global locus of innovation for low carbon energy, or as an export platform for low-carbon power'. However, the term community energy is not included and there is no specific focus on supporting bottom-up initiatives. This is the same for Brighton and Bristol, although recent research identifies that Bristol has a very active community energy sector (Oliver 2017). Conversely, Liverpool, which included a strong mention of communities in relation to community gardens, does not mention community-level energy but instead focuses on large scale energy production.

Central Government support for community-level sustainable development in the UK

Before Brexit, the UK was a signatory to EU targets to reduce fossil fuel emissions, increase renewable energy and improve energy efficiency by 20 percent by 2020 compared to 2005 levels (Jonas et al 2016). Joint working between communities, LAs and government towards environmental targets was introduced by the Labour government in 2003 during the ongoing New Deal for Communities regeneration programme which devolved some decision making powers to LAs (Jonas et al 2016). The New Deal for Communities was launched in 1998 'to change 39 deprived English areas, with regard to place-based, and people-based outcomes' (Lawless & Beatty 2013: 942). The New Deal could be seen to be developed around a consensus of what are constituents of good places including accessible services including schools and primary health care, access to employment, the positive appearance and safety of neighbourhood, including through, and the development of trust and social capital and (Krasner & Copeland 2004, Padley et al 2013). There was a strong focus on improving access to good quality green spaces within community focused objectives (Krasner & Copeland 2004). However, it was argued that the New Deal was a top-down programme rather than an initiative to support community-level initiatives and empowerment of local communities (Bailey & Pill 2015).

However, since the election of the coalition government in 2010, the UK Central Government policy towards climate change and support for sustainable development projects has been criticised for being ambiguous and favouring growth focused measures

(O'Neill and Gibbs 2013, Franklin and Marsden 2015, Jonas et al 2016). Subsequently, there have been significant continued cuts to public expenditure impacting on support to local authorities and support to communities, which have continued following the election of a Conservative government in 2015 (Tornaghi 2014, Crisp 2015, Franklin and Marsden 2015).

Support for community energy projects had been a focus of government support. Walker et al (2010), Seyfang et al (2013) and Creamer (2015) identify that government policy has supported community energy projects with an aim of reducing the use of fossil fuels, to increase support for locally appropriate technologies, including reducing opposition to wind farms, and to reduce carbon emissions and embed behaviour change at a community-level rather than focusing only on individuals. Seyfang et al (2013: 978) identify that:

‘communities are seen as critical players in sustainable energy generation and energy saving efforts, in key policies of the previous New Labour UK and devolved governments...and this has been reiterated by the UK's Conservative-Liberal Democrat coalition government’.

Parkhill et al (2015: 2) describe how in 2011 DECC reiterated this transformative aim by developing a policy objective to ‘transition to a low-carbon energy system by 2050’. However, since the Conservative party won the 2015 election, it has abolished DECC, and reduced subsidies, tax-relief and grants to community energy projects. For instance reductions to Feed-In-Tariff (FiTs) rates has significantly affected both the effectiveness of existing community energy schemes and reduced the number of new schemes (Parkhill et al 2015, The Guardian 2016c).

In contrast to community energy, support for urban agriculture does not appear in government policy documents (Ginn 2012, Tornaghi 2014). Miller (2015: 1209) finds some evidence of government support in the late 1990s and cites DETR (1998) identifying ‘it could be argued that the release of land for food-related ventures would help to meet national and LA policy objectives’. Land can be a scarce resource in some affluent cities such as New York, but in declining post-industrial cities there are often areas of vacant, but unsuitable, land such as brownfield sites (Staheli 2008, Milbourne 2012, Walker 2016). Communities often need support to secure land and then to make it suitable for food growing (Ferris et al 2001, Holland 2004, Wekerle and Classens 2015). Hunt and De

Laurentis (2015) identify there was UK government support for cleaning brownfield sites as recently as 2015, but more recently the UK government has stopped funding for cleaning of brownfield sites (Guardian 2016b). Land availability also impacts on developing green spaces and while brownfield sites may not all be suitable for growing food, they could be used as green spaces to improve the local environment (Milbourne 2012, Kirwan et al 2013).

Compared to England, the picture is different in Scotland and Wales where there is devolved autonomous government with more responsibility over areas of sustainable development. Studies including Franklin and Marsden (2015) Hunt and De Laurentis (2015), and Creamer (2015), identify that there has been more government funding for community-level sustainable development, where governments are more ideologically focused on supporting social and environmental aims with funds. Franklin and Marsden (2015) comment that the Welsh government Pathfinder programme was a good example of government support to community-level sustainable development activities. Through Pathfinder, the devolved Welsh government provided funding for 6 officers to work closely with a small number of projects for up to 2 years providing advice and capacity building support, including on how to access funding. This included a Pathfinder officer embedded within Cardiff City Council which had a dedicated sustainable development unit. Franklin and Marsden (2015) identify how the approach of the Pathfinder staff to support local initiatives allowed them to be accepted by both local government and community actors, helping stop a growing disconnection. However, unfortunately the Pathfinder programme was only funded for 2 years.

3.3) Conclusion: the need for local-level social and environmental responses to tackling climate change

This chapter has introduced the background for arguments to support local-level sustainability-focused initiatives. A key argument is that continuing government led approaches focusing on economic and scientific solutions to tackle climate change are not working and there needs to be a focus on solutions that bring in more actors, engage more people and work towards social and environmental sustainability. There has been increasing recognition of the potential for cities and local authorities to support community-level solutions. However, the evidence from research into how cities respond

to sustainable development suggest clear differences between the potential of prosperous cities with resources and declining post-industrial cities. In addition, without clear responsibilities and resources to pursue sustainable development that equally prioritises social and environmental solutions there is a tendency for all cities to focus on economic development as the main priority. The following chapter explores community-level sustainability initiatives in more detail including how they can be supported and some of the key challenges faced. There is a detailed focus on UA and community energy as strong examples of community-level activities and also as the main activities of the GP project.

Chapter 4) Community-level responses to sustainable development

There are growing arguments for support to community responses to climate change, both to focus on wider engagement and social sustainability and also because current top-down initiatives are not working by themselves (Holland 2004, Pearsall 2012, Smith and Seyfang 2013). Franklin and Marsden (2015: 941) argue for a focus on community-level sustainable development, which they argue is ‘important if we are to progress the construction of sustainable place making strategies as a major transcending force in post-carbon societies, and in doing so create more sustainable economies based upon more equitable and just systems of resource exploitation and development’.

Different frameworks have been developed to explore community-level approaches. Grassroots innovations and pro-environmental behaviour change are two of the more widely referenced approaches which are described below. The chapter then focuses in more detail on sustainable place-making as an emerging framework which builds concepts of sustainable development into place-making and which includes activities aiming to achieve beneficial social, environmental and economic outcomes at different scales. The chapter also contrasts the relevance of the concept of sustainable place-making to GP project compared to grassroots innovations and behaviour change approaches.

Urban agriculture and community energy projects are described in detail as strong examples of community-level approaches and also because of their importance to the GP project. The chapter then explores some of the tensions in community-level sustainability approaches including the extent to which they are effective and the extent to which they should be supported by local government.

4.1 Exploring different frameworks of community-level sustainable development activities

Grassroots innovations

There is a large body of literature that explores grassroots innovations as methods to develop sustainable ways of living and influence social practice, as part of transitions to a sustainable society (Seyfang and Smith 2007, White and Stirling 2013, Tornaghi and Dyck 2015). Grassroots innovations can include a wide range of activities including the

development of local food networks, community energy initiatives, community water supply and other activities including local e-currencies (Seyfang and Smith 2007, Hargreaves et al 2013b, Tornaghi and Dyck 2015). Smith and Seyfang (2013: 827) identify that grassroots innovations are bottom-up, organised by civil society, and focus on engagement and participation:

‘Grassroots innovations typically involve networks of activists and organisations generating novel bottom-up solutions for sustainable development; solutions that respond to the local situation and the interests and values of the communities involved. What they share is commitment on the part of those involved towards openness and inclusion in the processes of innovation and the outputs of innovation’.

It is also argued that grassroots innovations try to operate in opposition to a regime but with a view to influencing mainstream practices, such as urban agriculture projects promoting local food growing as an alternative to current policy towards food provision (Smith 2007, Raven 2010, Tornaghi and Dyck 2015).

The Transition Town (TT) movement is considered as an example of a grassroots innovation working towards sustainable transitions (Seyfang and Haxeltine 2012, Kirwan et al 2013, Aiken 2015). The Transition Towns movement is described by its founder, Rob Hopkins, as a "movement of people and communities coming together to reimagine and rebuild our world". The TT network is based on permaculture principles of earth care, fair share and people care and aims to develop and build utopian towns designed by communities instead of unconscious development driven by economic and social influences (Chatterton and Cutler 2008, Aiken 2012). The first TT group was started in Totnes, Devon in 2005 and by 2012 there were 325 TT initiatives in the UK and Ireland with more starting in Europe, North America and Oceania (Aiken 2012). Chatterton and Cutler (2008) identify that:

‘TT foregrounds the big twin threats as climate change and peak oil [and] TT argues that these problems, can be tackled only if we develop robust community responses, forming local groups that grapple with issues like food, health, transport, energy textiles and waste and working out how they can be less fossil fuel dependent on a local level’.

Aiken (2012: 95) identifies that the TT movement has a strong focus on participation, but does not make deliberate efforts to involve people on a long term basis: 'it is rooted locally, based on small-scale personal interaction, but has swings and ebbs and flows of people, ideas and energy throughout'. Aiken (2012) and Taylor (2012) identify that the ideal size of transition town is approximately 10,000, and where transition town movements have tried to work in cities, they have split into different size neighbourhoods. Aiken (2012) also identifies that the TT movement has developed into a successful civil society organisation (CSO) and has attracted substantial levels of funding through its focus on 'community' to tackle environmental issues.

Pro-environmental behaviour change

Kollmuss and Agyeman (2002: 240) define behaviour change as 'behavior that consciously seeks to minimize the negative impact of one's actions on the natural and built world (e.g. minimize resource and energy consumption, use of non-toxic substances, reduce waste production)'. Aiken (2012) and Creamer (2015) identify that in the UK, Government departments have focused on methods to influence pro-environmental behaviour change at an individual level, including through working with communities (Aiken, 2012, Creamer 2015).

Reducing energy consumption is a key area where the UK government has tried to influence demand because of a clear correlation between increasing renewable energy, improving energy efficiency and reducing carbon emissions (Hargreaves et al 2010, Stephenson et al 2013, Hargreaves et al 2013b). Hargreaves et al (2010) research the use of smart meters as part of the UK Central Government approach to behaviour change: which has committed to ensure provision of smart-meters to all houses in the UK by 2020. The Department of Energy and Climate Change (DECC) (2009: 7) identified that 'these meters will provide consumers with real time information on their electricity use to help them control consumption, save money and reduce emissions'.

Hargreaves et al (2010) initially conducted qualitative research with 15 households and then Hargreaves et al (2013b) conducted follow-up interviews with 10 of the original households. There are a wide range of conclusions relating to the behaviour change aspect of energy monitors, including how people use energy monitors to identify appliances that used high amounts of electricity or to identify normal levels of consumption. A key finding from their research is that smart meters make energy use 'visible' to householders and

enable householders to identify and discuss issues (Hargreaves et al 2010, Hargreaves et al 2013b). Hargreaves et al (2010: 6119) argued that using smart meters:

‘[gave] participants an increased sense of control and empowering them to take stronger action to reduce their own energy consumption, to discuss such matters with their family and friends, and to seek further assistance from housing associations, appliance retailers and local authorities’. This also enabled some households to make ‘energy saving and its financial and environmental benefits’ appear easier to achieve, more desirable and, crucially, a normal aspect of using energy in everyday life’.

However, there were also respondents who did not use their smart meters due to a range of factors including finding it complicated, user unfriendly and not aesthetically pleasing (Hargreaves et al 2010, Hargreaves et al 2013b). In addition, energy consumption is influenced by characteristics and relationships within the household including relating to age and gender. Over time, households normalised information from energy monitors and their consumption practices meaning there was little scope for continuously reducing consumption, with some households reacting defensively to any further focus on reducing consumption (Hargreaves et al 2010, Hargreaves et al 2013b). In conclusion, Hargreaves et al (2010), Hargreaves et al (2013b) identify that energy usage is influenced by social and collective norms rather than individual behaviour and that it will be impossible to achieve the level of reductions in carbon footprint required through individual focused energy efficiency measures. However, Hargreaves et al (2010) and Hargreaves et al (2013b) identify that it was not possible to collect quantitative information to demonstrate the level of financial or environmental benefits in either the original or the follow-up study.

There are clear links between the government use of smart meters and an ideological focus on individual behaviour change which critics argue has become a dominant policy discourse to reduce fossil fuel emissions (Shove 2010, Stephenson et al 2010, Hargreaves et al 2013b). Critics of the individual behaviour change approach argue a focus on individual behaviour is ineffective and stronger government policy that considers the range of influence on social practices would have a far greater influence on reducing demand in order to tackle climate change (Shove 2010, Evans et al 2012, Hargreaves et al 2013b). For instance, Shove et al (2014) argue how changes in working practices, office norms and architectural design have increased demand for air-conditioning and energy

usage which cannot be changed at an individual level. In addition, a de-growth approach that could see reductions in working days (e.g. a four day working week) would also reduce transport usage and ecological footprints at a greater scale than individual transport choices (Knight et al 2013, Bauhardt 2014, King and van den Bergh 2017). This view is reinforced by Creamer's (2015) research into behaviour change projects supported by the Scottish government. Creamer (2015: 984) identifies that an external evaluation into the impacts of the project reported that 'while carbon saving measures were implemented 'there is little to indicate that change towards low(er) carbon living necessarily followed, or will follow a result of similar efforts in the future'.

John et al (2009) and Goodwin (2012) contrast individual behaviour change with empowering people to make informed decisions by bringing people together to provide information and discuss issues. This argument also indicates the potential for behaviour change through working at a community level. MacNaghten (2003: 79) argues that communities 'represent the best scale at which to encourage individuals to adopt pro-environmental behaviours because it is this level "people are able to learn, feel and be empowered to act'.

There is a range of case study research which supports the potential for work in communities to change behaviour, such as reducing energy consumption (Stephenson et al 2010, Rotmann and Mourik 2013, Creamer 2015). Stephenson et al (2010) and Rotmann and Mourik (2013) identify that in their research, economic motivations were not as important as the role of intermediaries working at a community-level through energy literacy work, in reducing energy demand. Seyfang et al (2013) also identify how there has been an increase in community energy projects to help local people increase energy efficiency and thereby reduce fuel bills and also carbon emissions. There is less research focused on the potential of UA to change behaviour, but Andree et al (2015) also identify the potential for local food networks to change food consumption behaviour with the potential that this could then influence policy.

Therefore a picture emerges of the potential for community projects to help people change their individual behaviour by providing an opportunity for individuals to choose to become involved and participate in practical activities. Creamer (2015) agrees it is extremely complex to identify how behaviour change can take place, but believes that 'by framing environmental problems at a level at which individuals have a personal, lived

experience of the natural world, there is increased potential to connect with individuals concerns for nature and encourage pro-environmental choices’.

4.2) Sustainable place-making (in focus)

Sustainable place-making is another concept which focuses on localised grassroots approaches to sustainable development building on concepts of place-making (Franklin and Marsden 2015). This section explores place-making before then describing sustainable place-making and outlining different activities that can be viewed as sustainable place-making.

Part 1: Exploring examples of place-making

What is place?

Place is described as ‘humanised space.....Place is dynamic, historical, contingent and inseparable from human perception and experience’ (Dale et al 2008: 268). Place can be ‘the home’ or the wider community (Massey 1994, Bhatti et al 2009). Place can involve a strong senses of geography, identity, heritage, memory and nostalgia, which are considered essential components of people and communities developing a ‘geographical self’ (Casey 1993, Atkinson 2008, Pow 2009). Place is also fluid and a ‘complex product of the ever shifting geography of social relations past and present’ Massey (1994: 172).

A range of macro-level societal trends can influence the trajectory of places and how they change over time including ‘ethnicity, social class, age, household composition, and money’ (Kemper 2013: 108) and these trends could also include issues such as gentrification and migration. In addition, extreme crises influences such a war or climate change (such as the influence of rising sea levels) also impact on places. For instance, there is a constant wave of refugees leaving war affected countries (such as Afghanistan, Myanmar, Somalia and Syria) with consequences for their original communities, refugee camps they reach and the communities they may eventually settle in (Kibreab 1993, Jean 2015). A focus on refugees is clear example on how some places are fluid, sometimes contested and vulnerable to change (Massey 1992, Jean 2015). However, as well as macro level trends influencing place, place also influences how these issues are played out at the local level and the influence of place is often summarised as ‘place matters’ (White & Green 2009, Grint & Holt 2011, Jonas 2013).

It is argued that social networks are embedded in places and also influence how place is continuously shaped (Pow 2009, White & Green 2009). Places and strong social networks can create positive forces such as a strong sense of community and a focus on improving places. However, strong social networks, can also be restrictive such as through constraining ambitions or increasing suspicion of new ideas from outside, or be less open to diversity (Kutz 2001, Dale et al 2008, White & Green 2009). For example, White & Green (2009: 55) research attachment to place among young people in east Hull and argue that 'attachment to place can be a source of weaknessparticularly where the place has a lack of suitable and available jobs or training opportunities'.

There is a wide range of literature that explores connections between poverty and place (Wallman 1997, White & Green 2009, Milbourne 2010). For instance, Chapter 2 discusses how post-industrialised areas in the UK, including Hull, suffer from the consequences of loss of manufacturing jobs, poor housing and poor transport links and how this affects educational attainment, income, crime and mental health (Ayton et al 2003, Krasner & Copeland 2004, Porter et al 2015). More recently research identifies how poverty can be exacerbated by government policies including punitive benefit sanctions and austerity (Crisp 2015, Snell et al 2015).

There is a strong connection between place, quality of place, and the local environment, with access to good quality green and natural spaces considered an essential aspect of sustainability of places and well-being (Dale et al 2008, Milbourne 2010, Jean 2015). For instance, Dale et al (2008) argue that communities with access to beautiful natural often develop a stronger sense of place and mobilise to improve or protect spaces, in contrast to communities without green spaces. In the UK there is an increasing focus on the role of community groups, such as friends groups, in taking responsibility for maintaining green spaces as local authorities have suffered from cutbacks to financial budgets (Mathers et al 2015). This argument is also be extended to communities with assets such as community centres, libraries and museums which provide opportunities for developing social networks and helping people get out of the house and into the community (Kemper 2015).

Place-making

Pow (2009: 95) argues that 'humans beings are inescapably 'place-makers' whether in the home or in the wider community. Place-making is an active process described by Pierce et

al (2013: 54) as the 'set of social, political and material processes by which people iteratively create and recreate the experienced geographies in which they live..... Place-making is an inherently networked process, constituted by the socio-spatial relationships that link individuals together through a common place-frame'.

Place-making at a household level is an essential aspect of place-making, including for marginalised people. Muller (2000) focuses on place-making by children and identifies how one 15 year old boy describes how he wants to belong to 'a community where I am treated right and a place that is warm and friendly'. Sampson & Gifford (2010: 116) focus on young refugees and describe how they are involved in place-making at different levels including the home, with friends and in the wider community by 're-emplacing themselves' through 'actively seek[ing] out qualities associated with restoration and recovery and through these engagements, work to create therapeutic landscapes on arrival'. Sampson & Gifford (2010) describe how refugees seek to develop places that restore and develop self, relationships, security and opportunity. Sampson & Gifford (2010) identify that the most important places for young refugees are the home, school, local parks and libraries. There are then a second tier of important places including shops, public transport, other people's homes and places of worship. Fun, enjoyment, safety, calmness and cleanliness, emerge as important attributes of places. Access to nature plays as an essential role in restoring self and is underestimated in its importance for young people and Sampson & Gifford (2010: 124) describe that 'vegetation-trees, flowers, grass, was identified as another characteristic of place valued by newly arrived youth....connections with the natural environment are restorative and are particularly important during periods of ill health and stress'.

Fun and enjoyment are sometimes overlooked aspects of place-making. Bhatti et al (2009) identify the importance of people enjoying access to nature, Muller (2000) identifies how children love wild places, and Sampson & Gifford describe how refugees place-making through developing friendships including through sports and other activities, resonating with White & Green's (2009) description of the importance of social ties for young people.

Place-making also has a strong emphasis on improving health and wellbeing (Krasner & Copeland 2004, Sampson & Gifford 2010, Pitt 2014). Sampson & Gifford (2010: 116) describe that 'place matters when it comes to health and well-being....both in relation to empirical, physical attributes as well as lived experiences, emotional ties and meanings

and this evidence had been important for informing place-based health promotion interventions’.

Community level approaches to place-making

At a community level, Mathers et al (2015: 126) research friends groups who have taken responsibility for maintaining and improving green spaces such as parks and gardens as local government capabilities have reduced due to public spending cuts: ‘Residents and communities have long been interested in managing their local green spaces. As local authority budgets become increasingly restricted, communities are under pressure to take an active role in green space management in partnerships with the public, and where applicable, private sector’.

Some places and communities are rich in local actors including voluntary groups, friends groups and charities which can be a source of bottom-up place-making or act in the space between bottom-up place-making and government driven projects (Dale et al 2008, Featherstone et al 2011, Mathers et al 2015). For instance, Featherstone et al (2012) describe how local actors are working in partnership and responding to austerity driven cuts in public funding to public services as part of progressive localism. Featherstone et al (2012: 179) describe progressive localism as ‘community strategies that are outward-looking and that create positive affinities between places and social groups negotiating global processes’. Mathers et al (2015) term these community groups working to protect services which councils are unable to continue ‘place-keeping’ rather than place-making’, and this aspect of place-making is sometimes criticised for supporting government austerity policies and the roll-back of the state (Ferris et al 2001, Tornaghi 2014, Milbourne & Murray 2017).

Urban agriculture and community gardening also emerge as important place-making activities (Bhatti et al 2009, Pitt 2014, Jean 2015). Enjoyment of gardening, the physicality and rhythm of gardening tasks and gardening as a social activity are essential aspects of the effectiveness of gardening as a place-making activity (Bhatti et al 2009, Pitt 2014, Jean 2015). Connections to nature, improvements to the local environment and the long term nature of gardens are also fundamental to successful place-making (Bhatti et al 2009, Milbourne 2010, Purcell & Tyman 2015). Pitt (2014: 87) describes the therapeutic benefits of gardening for older people and people with mental health problems as ‘emplaced flow’:

'I suppose it's because you're taking your mind off your worries aren't you? And I don't know, just the fact that you're working around nature ...I suppose the smells and the fact that ... you see the benefits from it: just harvested a load of carrots. I just think it's the fact that you're taking your mind of everything else, just concentrating on what you're doing, where you're weeding or pruning stuff'.

Jean (2015: 56) researches place-making by refugees through urban agriculture and argues that 'for the farmers in this study, a sense of place comes from having the ability to participate in place-making activities that develop a connection to landscape, soil, and the physical environment'. In the quote above there is a strong connection to working in an outside space, similar to the therapeutic benefits of 'emplaced flow'. Jean (2015: 65) explores the emotional benefits for the refugees of this place-making from remembering the past lives and utilising skills, developing social connections. Agency is an important aspect of place-making for refugees and they used gardening as a way to use agency to become more self-confident in protecting their cultural heritage:

'First, participants described the connections between farm work, their historical areas of expertise, and their memories and self-concept. Secondly, they described the value of forming new communities around agricultural work. Finally, they explained the ways that farming was an act of cultural expression and even enabled them to resist assimilation into the dominant culture'.

Resonating with Sampson & Gifford's (2010) research into place-making for young refugees, and Muller's 2000 research into children and place-making, both Pitt (2014) and Jean (2015) also emphasise the importance of feeling safe and secure as a basis for being able to use agency.

Jean (2015) also identifies strong connections between place-making and developing livelihoods. For instance, involvement in UA activities helped refugees improve access to nutritious food, and generate income as well as developing skills and confidence which could help find employment. Parkhill et al (2015) also explore the connections between livelihoods and place-making with a focus on exploring how community energy initiatives support place-making. While many community energy initiatives (including solar panels, smart meters and energy literacy) have a focus on benefits at a household level, Parkhill et al (2015) argues that this can help more households participate in place-making, can

improve resilience at a household level, and in turn can improve resilience at a community level. Parkhill et al (2015) argue that resilience is an essential aspect of place-making. Resilience can include being prepared to respond and adapt to a range of shocks including financial challenges and extreme weather events such as flooding which can affect households and communities (as described by Chatterton and Cutler 2008 earlier in chapter 3).

Government policy towards place-making

Featherstone et al (2012), Grint & Holt (2011) and Mathers et al (2015) describe that since the election of the Coalition Government in 2010 and then the Conservative Government in 2015, there has been a gradual but pronounced change in national government policy towards place-making. Large scale government led urban development programmes such as New Deal which included a focus on place-making (Krasner & Copeland 2004) have been replaced by new policy directions including the Big Society in 2010 introduced by Prime Minister David Cameron which was then developed into the Shared Society in 2017 by Prime Minister Theresa May (Grint & Holt 2011, Aiken & Harris 2017). The Big Society focuses on an increased role for community groups and charities 'in social action, public service reform and community empowerment', supporting austerity driven cuts in public expenditure and a neoliberal focus on reduced government (Grint & Holt 2011: 86). Mathers et al (2015: 127) track the changes and impacts of the changes in relation to the management of parks and open spaces:

'Through Area Panels and Community Assemblies (the lowest rungs of government), the [Localism Act] provided significant community rights regarding government expenditure on local service provision and delivery, including budget allocations for parks. However, since 2011 the responsibilities associated with these rights have become unclear as (top-down) central government-led local authority budget cuts continue, including the abolition of Area Panels, Community Assemblies and ongoing reductions in park staff numbers'.

Grint & Holt (2011) argue that the rhetoric to give 'powers' to local communities and voluntary organisations has taken place in the absence of responsibility and sufficient funding. Mathers et al (2015: 134) argue that there needs to be continued government support otherwise 'smaller community groups may find it difficult to adapt and may disappear due to lack of internal capacity and external support' and identify that local

authorities should provide this support in the continued absence of action from Central Government. Mather et al (2015) also identify how community groups and voluntary organisations are more likely to be formed in more affluent areas where there is access to resources and volunteers with professional backgrounds.

Place-making can also have a radical edge particularly where there may be conflict between views on how a place should be shaped, with local residents using place-making to claim rights to the city (Lepofsky & Fraser 2003, Pierce et al 2013). Chapter 2 has already highlighted areas of conflict in local government approaches to sustainable development, many of which focus on place-making as a way of generating inward investment (Staeheli 2008, Crane et al 2013, Walker 2016). In addition, recent place-making news in the UK includes conflicts between Sheffield City Council and local residents over the awarding of a contract for a private company to remove trees from residential roads as a way to maintain roads and pavements (the Guardian 2017b). Bristol has been reported as the most racially divided city in the UK and there has been conflict over the removal of the names of historical figures with links to slavery from buildings as part of a wider push to reduce ethnic division (CODE 2017, the Guardian 2017c), although unlike Sheffield, Bristol City Council is taking steps to reduce conflict (see the Star 28.11.2017 – ‘Security Staff drafted in over Sheffield Tree War’).

The following quote from the research of Turner et al (2011: 490) argues that food gardening has developed as particularly important in times of crisis.

‘in times of fear and crisis we see people turn to food gardening. This may not simply be about the functional outcomes of food production, but may be about creating and supporting people’s efforts to establish a sense of connection and about grounding people in place and creating and supporting efforts to find a sense of purpose and belonging, not just to a community, but to land and nature as a personal and, sometimes rather intimate response to bigger picture issues over which we as individuals might feel we have little control’.

Fear and crisis could be applied to conflicts over place-making, violent removal from place for refugees, austerity driven cuts to public expenditure, or the consequences of climate change and climatic events (Pierce et al 2013, Jean 2015, Parkhill et al 2015). Turner et al (2011) then consider how place-making can contribute to responses to climate change as a bigger picture issue and develops concepts of sustainable place-making.

Part 2) Sustainable place-making

Franklin and Marsden (2015: 941) describe sustainable place-making as ‘involving groups of individuals who come together, in and through place, around a shared sustainability interest or ambition, often with the aim of bringing practical change in the local environment’. Although the term is introduced by Franklin and Marsden (2015), there is a wide range of literature that identifies the potential of community led responses to sustainable development as examples of ‘sustainability in action’ and which could fall under the umbrella term of sustainable place-making (Holland 2004, Crane et al 2013, Parkhill et al 2015).

There is significant overlap between sustainable place-making activities and grassroots innovations in the different types of projects considered. Urban agriculture (UA) and community gardening are strong examples of sustainable place-making, but sustainable place-making can also include local tree planting, community energy projects, community water projects and localised transport initiatives (Holland 2004, Franklin and Marsden 2015, Parkhill et al 2015). There is also the potential to include more technological and innovative projects such as e-currencies, green housing and green building design (Seyfang and Longhurst 2013, Franklin and Marsden 2015).

However, potential differences emerge between sustainable place-making activities and grassroots innovations. Sustainable place-making can have more of a focus on place, improving the local environment, participation of local communities and social benefits, whereas grassroots innovation activities can be more individual and household focused. For instance, community gardens could be a strong example of sustainable place-making as they have a focus on improving the local environment, reducing isolation and developing skills, through involving people in an everyday community based activity (Milbourne 2012, Crane et al 2013, Purcell and Tyman 2015). Community gardening can also have relatively low technical requirements and therefore low barriers to entry compared to community currencies which can require a high level of complexity and technical inputs (Seyfang and Longhurst 2013). In addition, the development of eco-enterprises and technological projects can be more focused on individual entrepreneurs and have barriers to entry for more marginalised people. The use of the term ‘innovative’ can also be exclusionary by focusing on a need to be new and creative. Compared to grassroots innovations focused literature, sustainable place-making literature also has more of a focus on the need to work with local government (Stephenson et al 2010,

Franklin and Marsden 2015). In addition, sustainable place-making does not focus on trying to change behaviour, with a focus on trying to change individual behaviour sitting uneasily within community-level approaches which have a focus on identifying bottom-up solutions (Aiken 2012, Creamer 2015, Howard & Wheeler 2015).

Examples of different types of sustainable place-making activities described in the literature are presented in Table 4.1 below. The table explores the level of technical inputs, the level of skills, funding requirements, the type of participation and the type of benefits. This indicates the extent that a community will be able to begin or continue with a sustainable place-making activity, and also indicates some of the barriers. For instance, community currencies would require a higher level of technical inputs, skills and ongoing support than a local tree-planting scheme and community gardens have a different focus on participation and benefits and different resource requirements than an income generating urban agriculture project.

Table 4.1) Types of sustainable place-making activity

Examples	Technological requirements	Skills required	Funding requirements	Type of participation	Type of benefits
Income generating Urban agriculture project.	Technological requirements can include land and some agricultural inputs depending on type of scheme, tools, health and safety requirements, transportation.	Food growing, enterprise, networking.	Land, equipment, skilled staff. Sometimes land available through access to unused land depending on size of land needed.	Broad participation not necessarily the main focus, can be more individual and also require certain level of food growing skills	Economic benefits can a key focus with some local environmental and some social benefits (including food growing for nutrition and health).
Community Gardening	Land is required plus some tools but lower technological requirements than UA projects.	Gardening, engagement. Fundraising.	Many start on available land. Funding requirements can increase depending on size of project and need for skilled staff.	Broad participation is a key focus, including targeting marginalised groups. .	Clear continuous local social and environmental benefits (including mental health benefits of working in natural spaces with others), with little evidence of economic benefits.
Protecting green spaces	Zero	Engagement/ activism.	Low – potentially legal costs	Broad participation is a key focus.	Local and wide scale environmental. Plus health and well-being benefits from working on community project.

Examples	Technological requirements	Skills required	Funding requirements	Type of participation	Type of benefits
Tree-planting	Low	Engagement.	Low – can rely on donations of tree saplings	Can vary between being community projects but sometimes involves volunteer days.	Local and wide scale environmental. Plus health and well-being benefits from working on community project.
Community energy	Technological requirements depend on the type of scheme. Renewable energy may require Solar Panels. Reducing energy demand may require smart meters.	Installation of renewable energy equipment. Could be high level fundraising.	Need funding for any equipment costs. Plus skilled staff.	Participation is on individual household basis rather than as social activity.	Local economic and wide scale environmental
Community transport	Technological requirements depend on the type of scheme such as use of electrical vehicle, or bikes.	Mechanical. Fundraising.	Need funding for any equipment costs and skilled staff. IT support.	Participation is narrower and can be on individual basis	Local economic and wide scale environmental
Community currencies	High level of IT technology required.	High level of IT skills. High level fundraising.	Need funding for equipment costs and skilled staff. IT support.	Aim for wide participation although not always realised. Initial focus on technical development.	Unclear but aiming towards economic and social.

Sources: Smith and Seyfang (2013), Franklin and Marsden (2015), Miller (2015)

4.3) Community-level sustainability: Urban Agriculture

In the UK, urban agriculture (UA), including community gardening, is a growing movement and the focus of increasing amounts of research and literature (Tornaghi 2014, Tornaghi and Dyck 2015). UA and community gardening are considered strong examples of sustainable place-making in a range of research (Holland 2004, Crane et al 2013, Franklin and Marsden 2015). For instance, Beilin & Hunter (2011: 523) argue that ‘since Agenda 21, local governments have sought ways of engaging urban citizens in the creation of more sustainable cities. Community garden (CG) activities are frequently described as contributing positively to the development of socially and environmentally sustainable local communities’

There are also a wide range of studies that review case studies of UA and community gardening as place-making activities without making an explicit link to wider concepts of environmental sustainability (Pitt 2013, Miller 2015, Tornaghi and Dyck 2015). Studies also focus on how UA and community gardens have been used to tackle environmental and social injustice, to challenge neo-liberal urbanisation policies and to help residents claim their ‘rights to the city’ (Tornaghi 2014, Purcell and Tyman 2015, Walker 2016). Certomà and Tornaghi (2015: 1123), comment that:

‘in the last decade, a large variety of grassroots actors – urban harvesters, guerrilla gardeners, community growers and landsharers – have been promoting a diversified set of projects that, while interstitial and very often considered ‘residual’ are nonetheless significantly challenging the place-making of cities in the Global North, and sometimes changing the face of neighbourhoods where they are located’.

However, the different schools of research identify the potential for a wide range of individual and community-level benefits including improving the local environment, enjoyment of being outside, increased health and well-being, increased skills and confidence and reduced isolation (Bhatti et al 2009, Miller 2015, Corcoran and Kettle 2015).

Urban agriculture is defined ‘as a broad term which describes food cultivation and animal husbandry on urban and peri-urban land’ (Tornaghi 2014: 1). UA also includes ‘community supported agriculture’ which is defined as ‘any food, fuel or fibre producing initiative where the community shares the risks and rewards of production, whether through ownership, investment, sharing the costs of production or provision of labour’ (Saltmarsh

et al 2011 in White and Stirling 2013: 3). However, the above definitions have a relatively narrow focus on food as an output with a financial reward focus and do not emphasise the cultural, social and environmental inputs and benefits from UA (St Clair et al 2017).

UA includes economic and income generating activities such as small intensive farming and local food networks (Tornaghi 2014, Wekerle and Classens 2015, van Garmeren et al 2015). However, UA also includes more leisure based and socially focused examples such as allotments, community gardening, therapeutic gardens, and school gardens (Milbourne 2012, Tornaghi 2014, Miller 2015). UA can also encompass informal gardening such as Guerilla Gardeners who are described by Adams et al (2015: 1232) as 'volunteers who, without permission, target spaces of neglect: they transform the environment without the landowner's consent, and thus could be deemed to be acting unlawfully'.

There is considerable blurring between different UA types. For instance, the term 'allotments' can describe multiple UA activities and aims including: growing food for consumption; growing food for income generation; gardening as an individual leisure activity; community allotments with a social focus; or community gardens with individual plots (Miller 2015). Some individual allotment holders would not want to be involved in a community project (Miller 2015, Adams et al 2015). In addition, groups will use different titles depending on local requirements, with some groups choosing to call their projects community gardens as allotments can require higher fees and permits in the UK (Adams et al 2015). Rooftop gardening and backyard sharing take UA into the private garden (Tornaghi 2014, Wekerle and Classens 2015). Guerilla gardeners can include radical and secretive groups, however, Adams et al (2015) identify an example of a Women's group conducting guerrilla gardening because they didn't get permission for a community garden, but went ahead anyway. In the UK, Incredible Edible Todmorden is an example of a guerilla gardening project that then developed into a formal organisation.

Community gardens

Community gardening has a community focus in terms of ownership, access and decision making. Ideally the local community are able to work on the garden over a long period of time to care for and nurture the garden, with assumptions of democracy, access, sustainability and community support (Ferris 2001, Crane et al 2013, Purcell and Tyman 2015). A number of descriptions of community gardening also identify the capacity for

building a range of benefits such as reducing isolation, improving health and well-being and providing food security (Ferris et al 2001, Pitt 2014, Miller 2015).

However, as in the complexity of defining UA activities, there can be many different types of community gardens such as 'leisure gardens; school gardens; entrepreneurial gardens; crime diversion gardens/ work and training gardens; Healing and therapy gardens; quiet gardens; neighbourhood pocket parks; ecological gardens; demonstration gardens' (Ferris et al 2001: 561).

The number of community gardens is increasing throughout the northern hemisphere including in the UK (Ferris et al 2001, White and Stirling 2013, Tornaghi 2014). A comparison of studies in the UK, show that the Federation of City Farms and Community Gardens estimated that it supported 1000 community gardens in 2012 compared to 583 projects in 2011 (Milbourne 2012, White and Stirling 2013). By 2012, there were approximately 60 city farms, 70 school farms, and an estimated 0.5 million people participating in different activities both as regular volunteers or one-off visitors (Miller 2015). Milbourne (2012) also identifies an increasing number of community gardens in disadvantaged areas, with the Royal Horticulture Society identifying it had 360 groups on its neighbourhood awards, mostly from disadvantaged areas. However, Holland (2004), Milbourne (2012) and Miller (2015) also identify that figures showing the scale of activities and number of participants are broad estimates of the actual picture, and doesn't include school gardens, foraging activities, and guerrilla gardening activities. This suggests a need for a comprehensive mapping exercise to identify the range of UA activities and who is participating to build a more accurate picture of activities (Holland 2004, Franklin and Marsden 2015).

UA and Community Gardening: benefits at individual, community and global levels

Researchers identify a range of positive social and economic outcomes from being involved in gardening. There is a wide range of evidence for benefits at individual and community levels including for marginalised people (Bhatti et al 2009, Tornaghi 2014, Miller 2015). A number of studies present qualitative research with voices from participants. Corcoran and Kettle (2015) review UA in a post-conflict Northern Ireland, Baker (2004), Harris et al (2014), and Jean (2015) have a particular focus on projects working with migrants and refugees, and Adams et al (2015) show perspectives from a range of different guerrilla gardeners. While not focusing on UA and Community

Gardening, Bhatti et al (2009) explore people's enjoyment of gardening, showing how this personal enjoyment is an important platform for participation and benefits. Adams et al (2015) also brings in a gender perspective. Views from everyday people involved in gardening are often different in emphasis from reflections from academic researchers, in the sense that 'everyday' gardeners can be more focused on what they enjoy as benefits and are less focused on wider politics, although this is not always the case (Bhatti et al 2009, Corcoran and Kettle 2015, Miller 2015). Although it is often difficult to split the benefits between the different levels as there is so much blurring and complexity, I have attempted to explore the benefits at individual, community and global levels below.

Individual and family benefits

Ferris et al (2001), Bellows et al (2003), and Miller (2015) identify a wide range of health and well-being benefits from UA and community gardening including improving nutrition, exercise, access to the outdoors, reducing isolation, and helping to deal with mental health challenges. In Bhatti et al's (2009: 73) research, participants voice the power of gardening and access to nature in helping them work through stress and different forms of depression. For example, one gardener they cite commented that:

'I can't imagine a world without flowers and plants and beautiful trees, nature is a miracle and even at times when I'm feeling a bit low, I have only to see a lovely view of pretty flowers, it makes me smile and feel better, in spite of all the awfulness going on in the world, nature still survives and makes a difference to how one feels'.

There is also some evidence that participants in community gardens have improved access to healthy and nutritious food which helps improve food security for those with limited income or living in disadvantaged areas (Kirwan et al 2013, Sadler et al 2015, Walker 2016). Buckingham (2005: 171) has a focus on gender and identifies that food growing 'is giving women in low income families the opportunity to provide fresh, and culturally relevant, food for their families'. Miller (2015: 1206) identifies that 'participants in community gardens are more likely to attain recommended levels of portions of fresh fruit and vegetables and supply of quality food was a key motivation for food gardening'. Ginn (2012) also provides a historical context for the role of UA in increasing food security from the example of the Dig for Victory campaign during WW2. Calls for improved food justice and food security for those with limited incomes, and limited availability of fresh and

healthy food, is increasingly relevant in the UK where there is growing food poverty and people relying on food parcels (Lambie-Mumford 2013, Perry et al 2014).

A key platform for the realisation of individual health and well-being benefits is the enjoyment people get from gardening (Bhatti et al 2009, Kingsley et al 2009, St Clair et al 2017). Bhatti et al (2009: 61) focus on three areas of enjoyment and link it to 'everyday' tasks involved in gardening:

'that is; sensuous and embodied experiences explored through the notion of haptic perception; 'cultivation' in the sense of taking care of the garden, as well as caring of the self and others; and emotional attachments invoking body place memories, especially of childhood gardens'.

Bhatti et al (2009: 70) also strongly focuses on the connections between gardening, cultivation and qualities of caring for natural spaces and other people, arguing that: 'doing gardening offers a multitude of opportunities to cultivate both the garden itself, the mind (or the soul or human spirit) and at the same time cultivate relationships, with friends, family'. This latter quote identifies a strong focus on caring and developing relationships which is an important aspect of many UA activities, both in terms of helping others and improving your own health. For instance, Bellows et al (2003) identify how pride from nurturing a garden is an important aspect of improving mental health.

As discussed earlier in the chapter in describing the links between community gardening and place-making, both Pitt (2014) and St Clair et al (2017) argue that there can be significant therapeutic benefits of community gardening for people suffering with a wide range of health and well-being issues including mental health challenges. For instance, St Clair et al (2017) research a community garden in northern England which has been established to help people undergoing cancer treatment and also involved participants from the local community, some of whom felt socially isolated. St Clair et al (2017: 5) discuss the impacts for one of the participants:

'For John, a member of the community garden, it was clear that he valued the time he spent at the site every Thursday: "The best thing about the site for me, I just see it as a kind of therapy...takes you away from your problems really...If you're thinking about your illness all the time, it just consumes you. I've seen this as, it's an outlet, only for a couple of hours a week, but it's definitely an outlet...It's therapy. Watching things grow."

Bhatti et al (2009) discusses how different people enjoy different gardening tasks, such as digging, weeding, planting, with different types of gardening allowing this flexibility. The different types of UA and gardening activities also mean that people can choose to garden as individuals or to work together with other people (Bhatti et al 2009, Miller 2015). This is explored by Miller (2015) in her interviews with allotment holders with quotes from gardeners identifying a range of contrasting views towards working with other people, from wanting to be able to help and give advice, to feeling encouraged by praise, or to wanting to escape and be on their own. Reducing isolation by working with other people interested in gardening is an important theme in research into health and well-being benefits (Bellow et al 2003, Buckingham 2005, Kingsley et al 2009).

However, individual level benefits can be wider than health and well-being. For instance, Miller (2015: 1204) focuses on interviewing individual allotment users with the following quote identifying a range of reasons for enjoying gardening, from the pleasure of gardening, to providing tasty healthy food, to reducing food miles and packaging with climate change implications and also indicating potential to save money:

‘I do it more for the pleasure than I do to save money....I think there’s absolutely nothing better than picking something and having it on your plate within the hour....I do like the idea that there isn’t a great distance between the plot and the plate and I like that is hasn’t been tampered with’.

Research identifies how UA and community gardening provides opportunities to increase self-esteem and skills development, whether this is for people trying to access jobs in horticulture, increasing general skills and employability through volunteering and working with others, or as a way of contributing to the local community and building social skills and social capital (Ferris et al 2001, Kirwan et al 2013, Tornaghi 2014). A key issue is that marginalised people may struggle to get out of the house and become involved in the local community without involvement in a positive project (Kirwan et al 2013, Crisp 2015). Buckingham (2005) identifies how women are becoming increasingly involved in gardening and how this is helping reduce isolation and increase independence and empowerment, including for women on low incomes. Ferris et al (2001) explore how UA and community gardens in the US can help meet the community and educational needs of refugee communities, provide learning opportunities for young people from low income homes, develop alternatives for young people at risk of taking drugs or committing crime, and

lowers reoffending rates for ex-prisoners. Developing skills as a way of reducing reoffending is supported by a range of studies in the UK such as Cosgrove and O'Neill (2011: 30) who identify an example of prisoners developing a vegetable garden and state that: 'the success of their vegetable garden has enabled further diversification, providing prisoners the opportunity to learn business skills, pottery and waste management skills in addition to horticultural skills'.

Building agency and sustainable livelihoods

The development of skills, confidence and social networks through UA and community gardening links to concepts of agency, empowerment, capabilities, and sustainable livelihoods (Crane et al 2013, Kirwan et al 2013, Miller 2015). Empowerment can be defined 'as a process by which those who have been denied the ability to make strategic life choices acquire such an ability' (Kabeer 1999: 435). There are strong connections between agency, empowerment and capabilities (Sen 1993, Chambers 1997, Scoones 1998). For instance, Chambers (1997: 1748) draws on the work of Amartya Sen and argues that "capabilities' refers to what people are capable of doing and being'.

However, there are barriers to marginalised people exercising agency. For instance Cleaver (2003: 15) identifies that the 'poorest people are both more dependent on their ability to exercise agency than others, and less able to do so effectively'. For instance, an ability to exercise agency depends on being able to tackle social injustice including issues of recognition, procedural and distributional justice discussed in Chapter 2 which focuses on issues of deprivation in the UK (Sen 1993, Walker & Day 2012, Snell et al 2015). These justice issues underline the crucial influence of institutions and organisations in influencing marginalised people's ability to access resources and exercise agency (Scoones 1998, Cleaver 2001, and Moser 2006).

Kabeer (1999) and Cleaver (2003) argue that there needs to be a deliberate focus on improving the 'effectiveness' of agency before then focusing on empowerment. Effectiveness of agency can be enhanced through improving access to employment education, skills and confidence, health and well-being, financial resources, and social networks (Chambers 1997, Wallman 1997, Scoones 1998).

Improving people's effective agency can then provide a platform for transformatory agency where marginalised people feel empowered to make life choices, challenge

inequalities and increase self-determination through having an increased voice in democracy (Kabeer 1999, Cleaver 2003, Staeheli 2008, Tornaghi 2014). Agency is also complex and Kabeer (1999: 435) identifies that individual agency includes 'less measurable manifestations such as negotiation, deception and manipulation'. Less desirable manifestations of agency also place an emphasis on projects focusing on supporting people to develop positive agency.

An important consideration for agency which is not explored in great detail in the research is whether effective agency and empowerment can continue into the long term, for instance if a project is stopped due to lack of funding or loss of land tenure (Ferris et al 2001, Staeheli 2008, White and Stirling 2013, St Clair et al 2017). A review of literature focusing on punitive welfare benefits identifies how marginalised people are vulnerable to negative shocks (Lambie-Mumford 2013, Crisp 2015, Snell et al 2015).

The concept of long-term sustainability is considered more explicitly in a sustainable livelihoods framework than in research into community gardening. 'Sustainable Livelihoods' strategies were discussed as part of the Brundtland report but had a clear focus on income and food (WCED 1987, Chambers and Conway 1992). However, other studies have developed a sustainable livelihoods concept that is wider than income or food, and also includes capability, well-being, security, and family and social networks (Wallman and Buchanan 1982, Chambers and Conway 1992, Scoones 1998). Wallman (1996) also identifies the importance of considering place, ethnicity and gender in how sustainable livelihoods are developed.

Community-level benefits

UA and community gardening provide the potential for individual benefits to develop into community-level benefits as people develop skills and confidence, give back to their families and communities, and develop social capital and community assets and resources (Kirwan et al 2013, Miller 2015, Tornaghi and Dyck 2015). There is also a range of research which identifies examples where community gardens have focused on empowering individuals to help demand more for their communities (Staeheli 2008, Sadler et al 2015, Walker 2016).

There is a strong connection between the long term nature of planting and cultivating a garden, and building a caring, sustainable and cohesive community (Bhatti et al 2009, White and Stirling 2013, Franklin and Marsden 2015). This focus on caring, cultivation and

community is particularly strong in community-focused projects such as community gardens (Ferris et al 2001, Holland 2004, Certoma and Tornaghi 2015). Certomà and Tornaghi (2015: 1137) argue that ‘the social coordination and physical labour required to establish and maintain sites of cultivation is immense. Preparing an urban site for planting intimately involves the participants in urban metabolism’. White and Stirling (2013) identify that while there is a focus on growing food ‘much else is grown in the process – including, community, confidence, welfare and skills....since the space is collectively worked and the produce is shared’.

In addition, a community garden can also bring people together from different cultural backgrounds through shared action, building different forms of social capital (Baker 2004, Jean 2015, Certomà, and Tornaghi 2015). Building social capital and cohesion across different cultures is strongly supported by a respondent in Corcoran and Kettle’s (2015: 1222) research into allotments in Northern Ireland:

‘that is the huge potential of allotments, the sense of bringing people together. I really feel that. I have seen that countless times. Out there, there are no boundaries or no barriers. It is a great social mixing place. Now more people on neighbouring plots might get to know each other because there are no walls or fences like there are with gardens’.

Holland (2004) also identifies how UA and community gardening activities can lead to the development and shaping of community-level organisations and institutions as part of a community asset base, with these institutions working towards long-term sustainability and also providing events for the local community. Ferris et al (2001: 565) also discuss potential community-level mental health benefits from reducing social isolation, describing community gardens as a place for community care:

‘Healing and therapy gardens are becoming very much an important element in community care provision following the closure of large mental health hospitals and the perceived need to treat many more people in the community’.

There is also analysis that suggests that improving the mental health of individuals through improving cultural and social infrastructure, such as community gardens, improves the mental health of a community as a whole (Bellows et al 2003). However, the use of the word ‘*perceived*’ by Ferris et al (2001) also refers to important potential criticisms of UA

and community gardening as being used to support the roll back of the state and that their benefits can be exaggerated.

Increasing voice in democracy and rights to the city

There is a wide range of research investigating UA and community gardening as a way of fighting for '*rights to the city*' and as political challenges to neo-liberal urban planning policies. Staeheli (2008), Purcell and Tyman (2015) and Tornaghi and Dyck (2015) identify that in the process of producing gardens, gardeners develop alternative and radical forms of urbanisation opposing the current neo-liberal urbanisation paradigm. Tornaghi (2014) analyses UA 'within a political ecology framework to '[expose] the forms of power, exclusion, injustice and inequality' in cities (Tornaghi 2014- quoting Brenner 2009:20). An approach to reviewing UA through a justice lens is also taken by Walker (2016) who tracks the development of UA initiatives in Vancouver and Detroit. Walker (2016) identifies that in Detroit many UA initiatives were begun by African Americans who were living in extreme poverty and whose interests were often excluded in political decision making. UA initiatives proved an effective way to help health and social well-being, through improving neighbourhoods and tackling food insecurity.

There are also many descriptions of the beneficial impacts of developing and cultivating green spaces which are accessible by the local community in urban areas, particularly in densely populated areas, enclosed by building and roads, and where people might not have their own garden (Ferris et al 2001, Crane et al 2013, Certomà, and Tornaghi 2015, Corcoran and Kettle 2015). The benefits of access to green spaces and gardens links back to Bhatti et al's (2009) descriptions of people loving being in gardens because of enchantment through contact with nature and its potential to relieve stress. Ferris et al (2001) and Milbourne (2012) link access to green spaces to environmental justice as it is often particularly disadvantaged urban neighbourhoods that can suffer from lack of access to green spaces. Milbourne (2012: 954) identifies that there should be research into the relationships between 'environment sustainability and justice – including the different roles of environment as cause, medium and outcome of socio-environmental outcomes'. Ferris et al (2001) and Milbourne (2012) argue that poor local environments exacerbate social exclusion, and indicate how this can be transformed by community gardening. Quoting one of his respondents Milbourne (2012: 949) identifies that 'we are interested in greening the place not just for the sake of greening the place but because....if we can transform the environment...we [change] the way the community feels'. Milbourne (2012

953) also describes how a community garden project aims 'to provide a peaceful and relaxing space where local residents can come and just you know spend some time in an environment that's quite different from the urban environment that they usually live in'. Milbourne (2012) also relates this to the practical attraction of gardening as an everyday activity, providing growing space for people who don't have gardens or allotments, linking to Bhatti et al's (2009) focus on the enjoyment of gardening.

A key area of research is whether UA and community gardens provide an opportunity for more formal participation in democracy (Staeheli 2008, Purcell and Tyman 2015, Certoma and Tornaghi 2015). In the US Ferris et al (2001) identify how UA and community gardening has enabled marginalised BME populations to broaden wider participation in democracy at a local level, identifying UA and community gardening as an outcome of the civil rights struggle. In addition Staeheli (2008: 6) argues that participation in community gardening allowed participants:

'to gain voice, and to hone the skills that would allow them to contribute to broader debates....and claim more services from the City of New York, in registering voters, in teaching about the importance of civic participation, and in organising protest over police brutality against poor, immigrant and racialized communities'.

For instance, a respondent in Staeheli et al's (2002: 200) research into community gardens in New York argues that that:

'there are people, young kids, who through nothing more than gardening, are now becoming community activists, are standing up for a right. Because of the fact that if it's a community garden today, it's your apartment tomorrow. It's your school the next day. So it all interrelates. As a community you must take a stand. You must take a stand for the control of how your community is run'.

Evidence of claiming rights to the city, opposing neo-liberal development and increasing participation in democracy are difficult to prove from research focusing on the UK, and there are calls for more research in this area (Tornaghi 2014).

A number of articles also focus on how food security and food justice can be improved at a community-level, particularly by farms and allotments. Andree et al (2015: 1461) describe that in their research into projects in Ottawa: 'the goal is to ensure access to quality food at a price that community and social service providers can afford'.

Miller (2015: 1208) supports this and identifies that in her research 'the allotment tenants contributed non-marketised food supplies to wider family, friends, neighbours, work colleagues, or other associations, and so help to reduce food poverty or inequality among wider urban populations. Rather than through the largely one way gifting involved in food banks, there is a sense of bounty and surplus with exchange of skills'. St Clair et al (2017) describe how participants in a therapeutic garden felt empowered by growing fruit and vegetables for use by a local hospital.

However, as with benefits at an individual level, there is little evidence of economic benefits to a particular place through UA or community gardening, with Holland (2004: 305) identifying that 'one area to be less successfully addressed in schemes is that of economic development', and this has consequences for the long-term sustainability of projects that rely on funding if no funding can be obtained.

Analysis of benefits for a marginalised group: refugees

There are a number of studies which indicate how UA and community gardening projects can improve social capital and cohesion (Milbourne 2012, Corcoran and Kettle 2015). Three studies in particular focus on the outcomes of food growing projects working with refugees: in Australia (Harris et al 2014), in Canada (Baker 2004) and in the US (Jean 2015). Each of the studies identified a wide range of benefits and very few, if any, negative consequences. Harris et al (2014: 9202) identify the main benefits of the project in Australia as being: land tenure helping refugees consider themselves as citizens, reconnections with agriculture skills from earlier lives, and developing a sense of community with other refugees and in the new country, concluding that the food growing project can help 'connectedness to their new country'. Jean (2015:56) concludes that the positive outcomes for refugees working with a food growing project in Utah are essential aspects of place-making for refugees in new communities and describes the outcomes as:

'both material (providing for nutritional needs, acting as a source of income, and providing a location for physical exercise and outdoor activities) and emotional (providing a link to source of expertise and a former way of life, enabling development of new communities, and as an expression of culture or act of resistance)'.

Baker (2004), Harris et al (2014) and Jean (2015) indicate that developing social connections with other refugees is an essential aspect. Baker (2004) explores in detail the

benefits of refugees coming together to share experiences with peers and also growing culturally important food. Quoting the coordinator of a local Afro-Caribbean food growing project, Baker (2004: 317) argues: 'they meet, usually have the same problems, so they have a connection, they have a common understanding of what they have to face in this new country. We are trying something different. We grow together, then we share the food together'. In addition, Jean (2015) argues that food growing helps refugees bring an essential understanding of the physical environment in their sense of place, which is often overlooked in research into how refugees adapt to new countries.

These studies by Baker (2004), Harris et al (2010) and Jean (2015) provide a strong basis for considering community food growing projects as a way to empower refugees. Jean (2015: 47) identifies the potential for food growing to help exercise agency with 'both assimilation and resistance techniques'. Baker (2004: 323) explains how involvement in food growing and the garden space can provide a platform for refugees to become food citizens using 'their neighbourhoods as a means of resistance, asserting their identity to reclaim space and engage in projects of citizenship'.

Both Kibreab (1993) and Jean (2015) identify the importance of refugees having the opportunity to exercise agency particularly after living for many years in refugee camps where there is more of a focus on handouts than providing refugees with the opportunity to secure their own livelihoods. This resonates with findings by Jean (2015: 61) who highlights that 'about half the respondents mentioned their inability to produce their own food as a source of frustration in refugee camps'. In line with analysis on the importance of institutions in providing opportunities (or creating barriers) to exercise agency by Cleaver (2001) and Kabeer (2011), CSOs played an important role in supporting the projects for refugees to become involved in positive projects as newly arrived refugees face considerable barriers to start their own projects (Baker 2004, Harris et al 2014, and Jean 2015).

A number of recent UK-focused research articles on refugees have a significant focus on 'integration', reflecting wider societal concerns. Integration is a contested term avoided by Harris et al (2014) and Jean (2015) in their research and who instead focus on terms such as adjustment, building connections and developing a sense of place. Phillips and Robinson (2014) indicate that developing a sense of place can be assisted by factors such as quality of housing, living in multi-cultural communities, the attitudes of local residents, and the development of social connections and the role of institutions (Platts-Fowler and Robinson

(2015). However, adjustment can also be influenced by the value placed on refugees' skills, knowledge and culture (Butler 2005, Ager and Strang 2008, Philips and Robinson 2014). UA activities, supported by civil society organisations focused on including marginalised groups, could be one such area where refugee skills could be highly valued and encouraged, given that many refugees have food growing backgrounds (Baker 2004, Jean 2015) and given the context of increasing local food growing activities in the UK (Agyeman 2008, Crane et al 2013, Tornaghi 2014).

Global benefits

When considering UA and community gardening as part of work towards sustainable development, there is also a need to consider wider environmental benefits which are not explicitly considered in the sustainable livelihoods frameworks developed by Scoones (1998) and Miller (2015). Many analysts argue that localising food systems and developing green spaces can have global benefits for the environment. Ginn (2012) describes how Archbishop Rowan Williams called for people to 'Dig for Victory' over climate change by growing more food at home and therefore reducing food miles. There is also the potential for UA and community gardening to build local food networks, and therefore reduce food packaging, the use of chemicals and the need for transport (Tornaghi 2014, Andree et al 2015, Wekerle and Classens 2015).

Mason and Montalto (2015: 142) describe how urban gardens and tree-planting, are overlooked in terms of how they can impact on climate change and try to quantify environmental benefits from increasing vegetation through UA, in terms of measuring the mitigation of CO₂ emissions 'despite evidence suggesting that environmental benefits accrue when even small pockets of open space are made permeable and vegetated'. Mason & Montalto (2015) provide some evidence of vegetation helping the local area adapt to heavy rainfall and at a wider scale in terms of reducing atmospheric CO₂.

However, these benefits are less tangible, and also '*hotly contested*' (Miller 2015: 1207) and therefore could be considered a weakness of placing UA and community gardening as a sustainability strategy from a global environmental perspective. The lack of tangible and measurable benefits also strongly suggests a need for greater monitoring and evaluation (M&E). For instance, Mason and Montalto (2015) is currently the only study identified which tries to quantify reductions in CO₂ emissions through UA activities. Stronger M&E information is identified as a key area of focus in arguments for a more co-ordinated

approach to supporting sustainable place-making activities (den Exter 2015, Franklin and Marsden 2015).

4.4) Community-level sustainability: Community Energy

Community energy projects could be considered sustainable place-making initiatives (Franklin and Marsden 2015, Parkhill et al 2015). For instance, Parkhill et al (2015) review case studies of community energy projects as sustainable place-making projects, including a project working to reduce fuel poverty in deprived communities. In this section, I review research into different types of community energy initiatives and impacts at individual, community and global levels and try to focus on projects working with vulnerable people. Research into the outcomes of community energy projects have a strong focus on the financial benefits (Seyfang et al 2013). For instance, research into working with vulnerable people has a strong focus on reducing fuel poverty (Martiskainen and Nolan 2015, Parkhill et al 2015). However, there is less in-depth research into the wider impacts of community energy projects at individual, community and global levels compared to UA, potentially because many community energy projects work at a household level rather than in a public space (Hargreaves et al 2010).

Types of community energy projects

Community energy initiatives can include projects to generate renewable electricity, such as through installing solar panels, and projects to reduce energy consumption (Saunders et al 2012, Seyfang et al 2013, Martiskainen and Nolan 2015). There has been a significant increase in the number of UK based community energy projects since 2007 (Seyfang et al 2013, Martiskainen and Nolan 2015), with the Department of Energy and Climate Change (DECC) estimating in 2014 that there were up to 5,000 initiatives looking at community energy in some form (Martiskainen and Nolan 2015).

Martiskainen and Nolan (2015: 2039) identify six different types of community energy projects:

- 1) 'community owned renewable energy generation technologies such as solar PV panels, wind turbines and hydroelectric generation'
- 2) 'community switching schemes to renewable heat sources such as heat pumps, biomass boilers or district heating schemes supplied with heat from sustainable sources;'
- 3) 'community

energy saving measures such as rolling out cavity wall or solid wall insulation;’ 4) ‘piloting emerging and ‘smart’ technologies;’ 5) ‘community purchasing schemes for fuels but increasingly also technologies that can substitute conventional fuels;’ and 6) community electricity supplier switching schemes’.

Seyfang et al (2013) conducted UK wide research of community energy projects focusing on surveying different projects’ objectives, how they started and views on challenges and outcomes. The study identified 234 active community energy projects in the UK and 212 organisational stakeholders at national, regional and local levels. Seyfang et al (2013) managed to conduct research with 190 projects. The number of projects identified by Seyfang et al (2013) is far lower than the 5,000 estimated by DECC. There could be differences in definitions with DECC potentially including projects like Green Prosperity which include community energy activities within a broader range of interventions, and other interventions focused on reducing costs for vulnerable people (Lorenc et al 2013, Simcock et al 2016).

Seyfang et al (2013) found that 90% of the community energy projects were focusing on a local community and were relatively small scale with up to 30 local community supporters. Community energy groups were mainly developed by civil society, including formal organisations and grassroots groups and individuals. The majority of community energy projects worked across both community renewable energy (82%) and energy efficiency saving activities (86%), with some projects focused solely on renewable energy production or reducing energy costs. However, research by Saunders et al (2012), Martiskainen and Nolden (2015) and Parkhill et al (2015) identifies that a number of community projects have refocused from renewable energy to reducing energy consumption due to falling revenues from Feed-In-Tariffs (FiTs), and this could see a reduction in the proportion of renewable energy projects compared to energy efficiency projects.

Seyfang et al (2013) identified that most projects had objectives which focused on both reducing carbon emissions and reducing energy costs. However, projects tended to emphasise the potential for reducing energy costs when communicating their objectives to local communities, rather than emphasising reducing carbon emissions (Seyfang et al 2013), with this finding supported by other studies into community energy projects by Saunders et al (2012), Martiskainen and Nolden (2015), Parkhill et al (2015). Seyfang et al (2013: 982) identify that ‘overall, economic objectives were the most prominent (held by

96% of groups), followed by environmental (88%), social (73%), political (73%) and infrastructural (68%) goals’.

Seyfang et al’s (2013) research also asked projects to identify their main challenges. Most respondents felt they were achieving their aims with only 7% identifying they were not meeting their aims. Respondents identified that the main weaknesses included access to funding (31%), relying on a small pool of volunteers and needing more ‘staff’ support (18%), with a relatively low need for technical support. Despite Seyfang et al (2013) identifying that some projects only had a relatively small numbers of supporters, engagement with the local community was only identified as a weakness by 2% of projects. Uncertainty of funding was also found as a key challenge in the case study examples researched by Saunders et al (2012), Martiskainen and Nolden (2015), Parkhill et al (2015). Lack of funding could be more critical since the abolition of DECC and a consequent reduction in income generating opportunities through grants, tax-relief or subsidies (Parkhill 2015, Guardian 2016c).

The use of smart meters is one such approach to reduce household energy demand in line with a behaviour change approach explored in chapter 4 (Hargreaves et al 2010, Stephenson et al 2010, Hargreaves et al 2013b). The use of smart meters to reduce demand is not explicitly identified within Martiskainen and Nolden’s (2015: 2039) typologies of community energy projects, but can be seen to fit within 3) ‘community energy saving measures such as rolling out cavity wall or solid wall insulation’; and 4) ‘piloting emerging and ‘smart’ technologies’. Hargreaves et al (2010) and Hargreaves et al (2013b) provide one of the few longitudinal studies of the smart meters, providing qualitative research based on interviews with 15 householders (as described in chapter 4). However, this research project was linked to a funded university research project rather than a community energy project.

Projects working with vulnerable people

The research on use of smart meters by Hargreaves et al (2010) and Hargreaves et al (2013b) do not specifically focus on vulnerable people. Hargreaves et al (2013b: 132) identify that they did conduct some research with low income and older interviewees, but that the respondents were sometimes defensive and that they felt ‘they should not be singled out or made to feel guilty about what they considered to be normal levels of

consumption, especially as long as other households, government or industry remained particularly more profligate in their energy consumption’.

In their research, Seyfang et al (2013) described that a number of organisations working on community energy focus on fuel poverty, but their research did not explore the impacts or effectiveness of particular projects in communities. Saunders et al (2012), Martiskainen and Nolden (2015) and Parkhill et al (2015) explore the impacts of community energy projects on people in fuel poverty. Saunders et al’s (2012) case study focuses on renewable energy projects and identifies that there is potential for renewable energy projects to help those in fuel poverty, but this is dependent on intermediary organisations, such as civil society, to provide access to information and finance. However, later research by Martiskainen and Nolden (2015) and Parkhill et al (2015) into the potential of renewable energy projects to help those in fuel poverty identify how Central Government reductions to the FiT rates negatively affected renewable energy projects which had planned to use Solar Panels to provide electricity and generate income from feed-in-tariffs.

Lorenc et al (2013) also present research into work with vulnerable people to reduce fuel costs through switching energy tariffs. However, it is difficult to identify whether this type of project would be considered a community energy project by Seyfang et al (2013) as it was mainly focusing on improving the welfare of marginalised people by reducing household costs across a range of issues and may not necessarily outline sustainable energy or energy efficiency in their aims (Simcock et al 2016).

Community energy: benefits at individual, community and global scales

The level of individual and community benefits may be narrower than from urban agriculture activities. For instance, there is less evidence of community energy projects developing community spaces where people can join a community of practice and support each other to develop skills and confidence, reduce isolation and improve mental health.

It is argued that there are clear individual benefits in improving financial literacy, reducing energy bills and fuel poverty. For instance, Parkhill et al (2015) identify that their case study project in Wales focused on reducing energy demand and helped alleviate fuel poverty. Stephenson et al (2010) describe how a local energy project enabled 53 houses to access energy insulation upgrades. In addition, Hargreaves et al (2010) argue that a potential benefit of smart meters is to improve energy literacy and empowerment to raise issues with local authorities and institutions. Lorenc et al (2013) describe the impacts of a

civil society project to help people vulnerable to fuel poverty switch tariffs, and from the 151 people included in the research, 19 tried to switch tariffs of which 13 were successful and ‘anticipated savings were between £20 and £150 a year’ (Lorenc et al 2013: 898).

Improving energy efficiency, improving energy literacy and reducing costs can help people achieve more sustainable livelihoods. As well as reducing costs, greater cost efficiency can enable people to afford to operate appliances that assist their day to day lives, such as phones and laptops (Day et al 2016). In addition, there are strong links from reducing vulnerability to fuel poverty to improving health and well-being at an individual level, which could then also lead to healthier communities (Ferris et al 2001, Liddell and Morris 2010, Parkhill et al 2015). However, Hargreaves et al (2010) argue that for one low-income family in their research, the smart meter might have caused additional stress and health consequences as they were trying to reduce usage but at the same time feeling cold.

At a global level, there is a clear link from increasing renewable energy and reducing energy demand to reducing fossil fuel emissions (Stephenson et al 2010, Seyfang and Smith 2013, Parkhill et al 2015). However, again there is no quantitative information in the various research on reductions in CO₂ emissions. One potential gap in the literature is that there is little analysis of where community energy activities have tried to work in tandem with other place-making activities.

Lack of data on individual, community and global benefits.

However, a review of research into projects working in local communities, such as by Saunders et al (2012), Lorenc et al (2013), Martiskainen and Nolden (2015) and Parkhill et al (2015), has little direct evidence from project beneficiaries, such as through direct quotes, describing how these projects helped their lives. The studies by Hargreaves et al (2010) and Hargreaves et al (2013b) do contain testimonies from participants of how they used a smart meter, but are less focused on how it improved their lives.

In addition, both Hargreaves et al (2010) and Hargreaves et al (2013b) identify it was very difficult to obtain quantitative evidence on reductions in household bills or consequently CO₂ emissions. Although Lorenc et al (2013) managed to develop some quantitative information on savings from their study into helping vulnerable people switch tariffs.

In many cases, research has been conducted in the early stages of a project before residents have felt the benefits from projects (e.g. Saunders et al 2012, Martiskainen and

Nolden 2015 and Parkhill et al (2015). A lack of data could also relate to approaches to participation and engagement. UA activities can benefit from a long term approach to building a community of practice, which then provides a space and relationships for people to feedback on projects including how projects help them. However, in contrast, many energy focused activities can have limited ongoing engagement and there can be reticence to become involved and share information (Hargreaves et al 2010, Lorenc et al 2013, Parkhill et al 2015). Parkhill et al (2015) also identify the need for ongoing work with residents to build trust and rapport to engage residents in community energy schemes. In their research into helping vulnerable people switch tariffs, Lorenc et al (2013) conclude that:

‘Low-income consumers appear to have considerable apathy to switching energy tariffs, despite potential savings and health benefits, in part due to their complex lives in which switching is not a priority. An independent, one-on-one, personalized ‘intervention’ encouraged switching, particularly for young families. However, older people still experience significant barriers to switching with specific interventions needed, which take account of their status quo bias, energy use habits and scepticism’.

In addition, there is a strong link between community energy projects and sustainable transitions literature which has less of a focus on researching individual and community-level benefits, in contrast to research into UA and community gardening (Hargreaves et al 2013a). For instance, Hargreaves et al (2010) and Hargreaves et al’s (2013b), primary research aim is to identify how people use energy monitors and how it has changed behaviour rather than how it has helped them reduce bills, reduce stress or improve health. This lack of evidence of benefits to individuals and communities underlines the potential for more research in this area.

The connections between community energy projects and sustainable place-making is not as robust compared to UA and community gardening as there is less evidence in the literature of beneficial outcomes at individual and community levels. However, community energy has a strong focus on helping households lead more financially sustainable lives which could then impact on community resilience and sustainability (Parkhill et al 2015). There are also clear links from reducing energy usage to reducing fossil fuel emissions although there is a shortage of quantitative information in this area. However, there are indications that a long term approach to working with individuals and communities could

help engage people and then provide a basis to measure wider individual, community and global outcomes across social, environmental and economic measures.

4.5) Community-level sustainability: a realistic role for local government?

There are increasing calls for community-level sustainability activities to be better supported by local authorities (LAs) as part of the response to climate change (Bulkeley 2015, Creamer 2015, Franklin and Marsden 2015). It is argued that LA support should focus on building up a clear picture of what is happening on the ground, enabling participation by different actors, and supporting and scaling up activities where possible. For instance, Creamer (2015: 995) identifies that ‘Local Authorities have the potential to play a key role in fostering connections and collaborations between projects and creating regional portfolios of inter-connected initiatives’.

In relation to building up a clearer picture from the ground, at a practical level there is a clear shortage of data on the number of UA or community energy projects (Seyfang et al 2013, Miller 2015). Holland (2004: 285) identifies that there are ‘a range of local initiatives that demonstrate part of the sustainability concept but not a clear picture of sustainable development which covers all of its aspects’. Franklin and Marsden (2015: 940) take this further by arguing for a greater role for local government:

‘Why, despite a recent surge in the UK in ‘sustainable communities’ policy discourse, do so many community-led sustainability initiatives remain fragmented, marginal and disconnected from local government strategies? How can community and government led sustainability initiatives be better integrated such that they add significantly to a denser matrix and cluster of sustainable places?’

Mason and Montalto (2015: 1412) also make a case for strengthening policy support and suggest that sustainable place-making initiatives such as tree-planting and gardening ‘together with education, communication and training plans, incentives and legislation could[spur] more widespread adoption of climate change adaptation and mitigation strategies’.

There are calls for LAs to develop strong overarching strategies that provide a clear policy foundation for resource allocation and day to day decision making (den Exter et al 2015). Local government could provide a wide range of support to community activities including

lower business rates, access to land and premises and access to training and support (Holland 2004, Franklin and Marsden 2015).

Taking the example of UA and community gardening, as a first step to providing long term support, LAs could increase practical support in a range of ways including to secure land on long term leases, to enable the use of council facilities. In addition, LAs could support health and well-being work for people with complex needs through funding community gardens as public health initiatives (Holland 2004, Andree et al 2013, Tornaghi 2014, Miller 2015). For instance, Franklin and Marsden (2015: 948) quote from a UA agriculture project manager frustrated at the lack of support from the council ‘I might be wrong, but I can’t think of anything they [the LA] have done to help, and I think they could have been incredibly helpful’. Holland (2004) and Franklin and Marsden (2015) also argue that LAs could also help ensure that local activities actively try to involve marginalised groups as sometimes sustainability-focused activities become dominated by more empowered middle class participants (Chatterton and Cutler 2008, Aiken 2012).

Planning is one key LA function which has multi-level implications ranging from long term decisions on the development of cities through to day to day decisions on land usage (Purcell and Tyman 2015). Decisions over land use is a particular focus point of articles reviewing UA, with land accessibility and security both big issues affecting community garden projects (Tornaghi 2014, Purcell and Tyman 2015, Sadler et al 2015). Holland (2004: 291) argues that:

‘the community need not own it, but some form of secure land tenure is important for the longer-term survival of the scheme. Insecurity over tenure can often blight a community’s development of a garden – despite a growing season of several months, which gives a short term feel to a garden, growers often plan for seasons ahead and may regard lack of tenure to a barrier to garden development’.

For instance, St Clair et al (2017) research a therapeutic community garden established by a charity in northern England which helped cancer patients and other members of the local community as part of a five year funded project. However, the land was then returned to the site owners after the end of the project, severely affecting the participants in the community garden: “If [the site is] moved, I don’t know what Tony would do to be honest with you. It would be very difficult... I think it would really hurt Tony.”

There are examples where LAs have helped change policies to allow communities to secure land (Follmann and Viehoff 2015, Tornaghi and Van Dyck 2015). Follmann and Viehoff (2015: 1167) identify an example of how a local campaign to protect a community garden in Berlin, resulted in changes to the legal framework for public land sales in Berlin. Tornaghi and Van Dyck (2015) identify how their UA initiative opened up participation in LA decision making in the UK (in a northern post-industrial city).

However, in the longer term there needs to be formal policy support from LAs within mainstream local development and urban planning policies, backed up by budgets and resources, and by central government support (Holland 2004, McClean and Boren 2012, Purcell and Tyman 2015). Many researchers call for a reflexive and participatory approach towards the development of sustainable development policy including the use of land (Crane et al 2013, Andree et al 2015, van Garmeren et al 2015). For instance, Crane et al (2013: 76) envisage a:

‘loosening of the traditional reins of urban planning and spatial control.... [and] moving beyond participatory planning to space that is conceived, designed and implemented on a grassroots level has the potential to produce new, open and creative use of space that reflect local community interests thus engaging actors in their neighbourhood and city in new and unforeseen ways’.

4.6) Community-level sustainability: over-romanticised or credible alternative?

The literature review has so far argued for better support for community-focused sustainable development activities. In addition, it has argued that sustainable place-making is a framework that could be supported to develop social, environmental and economic outcomes at different scales and also include a focus on engaging marginalised people in deprived communities. However, critical analysis identifies a number of key issues relating to the value of community-level sustainability activities and how realistic it is for them to be supported in policy. A key area of criticism is that much research into community-level activities romanticise and exaggerate their benefits and does not investigate any negative consequences (Ferris et al 2001, Tornaghi 2014, Miller 2015).

From an environmental perspective small scale initiatives are criticised for not achieving the scale of fossil fuel emission reductions that are required to tackle climate change, with

a disconnect between small scale local environmental improvements and broad global environmental system changes (Chatterton and Cutler 2008, Shove 2010). For instance Chatterton and Cutler (2008: 12) argue: 'while it is clearly important to support projects for environmental sustainability and improve our local communities resilience, this should not be confused or conflated with tackling the root causes of climate change'. Chatterton and Cutler (2008: 33) also argue that:

'It is very useful here to clarify between two different types of changes. There are possible environmental improvements in a place (recycling or reducing pollution in a local river for example) and environmental improvements to a system.... [e.g. climate change].... The crucial point is no causal relationship can be assumed between the two types of change'.

The argument brings in a crucial question on the scale of action required from community-level sustainability-focused initiatives (Aiken 2012, Franklin and Marsden 2015).

Chatterton and Cutler (2008: 6) also identify that the main focus of action should be to oppose government and energy companies 'if we want to avoid catastrophic climate chaos we must leave the majority of fossil fuels where they are – in the ground....dramatically reducing our personal consumption and demand is one part of this, but it is only one side of the equation.... it [also] involves taking on power and those who hold wealth and influence'. Chatterton and Cutler (2008: 34) argue that community groups should come together in opposition or as an alternative to government, and then to try to influence local and central government policy:

'to make any real policy changes, communities need room for manoeuvre at a local level – they need power and resources...the state is part of the problem and clearly does not have all the answers nor can it coordinate all of the responses...they must not become an appendix to the local state or preserving pockets of sustainability for a privileged few or they will simply be dead in the water'.

A further criticism of supporting community-level sustainability-focused activities, and also asking government to support such initiatives, is that this could be seen to support rollback of the state supporting the government austerity agenda and cutbacks (Featherstone et al 2012, Tornaghi 2014). Tornaghi (2014: 3) identifies that UA can help justify 'privatisation of the urban realm and disinvestments in disadvantaged areas' such as through cuts to health and well-being services, and public space management, with

Tornaghi (2014) arguing that this in itself perpetuates social and environmental injustice. For instance, community gardens are criticised for potentially supporting the roll-back of the state, such as in terms of substituting professional care for community care for people with mental health issues (Ferris et al 2001, Milbourne 2012, Tornaghi 2014). In addition, the growing number of community energy initiatives has also coincided with the government reducing support through the abolition of DECC, reduced grants and lower Feed-in-Tariffs (Seyfang et al 2013, Parkhill et al 2015).

There are also questions as to how realistic it is to ask cities and local government for support. As discussed earlier, the role of local government in the UK has been hampered by a range of factors including budget reductions, lack of political will to tackle climate change as a priority, and lack of a supportive national government policy framework (Holland 2004, Franklin and Marsden 2015, Jonas et al 2016). Research into local government support identifies how this lack of leadership and resources brings many other challenges including a sense of inertia, lack of capacity, lack of focus on ensuring participation of community groups (Hjerpe et al 2015, den Exter et al 2015, Franklin and Marsden 2015). Many observers also argue there are very few positive examples of effective LA support to local initiatives particularly in the UK (Holland 2004, Chatterton and Cutler 2008, Franklin and Marsden 2015).

There are also warnings relating to potential dangers of too much local government support (Tornaghi 2014, Franklin & Marsden 2015, van Garmeren 2015). Top-down, bureaucratic and non-participatory decision making of LAs can put civil society actors off working with local government, restrict more radical objectives or even lead to the end of projects (White and Stirling 2013, van Garmeren 2015, Aiken 2015). White and Stirling (2013: 19) argue that LA involvement 'becomes increasingly institutional and bureaucratic and the spontaneity goes out the window and the fun goes with it'. This can particularly affect the engagement of marginalised groups who might not have the skills or confidence to deal with bureaucracies (Staeheli 2008, Tornaghi and Van Dyck 2015, Follmann and Viehoff 2015). In addition, it is argued that LA officers can sometimes see themselves as experts and not want to engage local groups (den Exter 2015, Hjerpe et al 2015).

There is also debate from a social perspective relating to how successfully community-level activities engage marginalised groups. A common criticism of the Transition Town movement is that it is dominated by middle-class members and does not work to reach out to the wider community as it prioritises environmental rather than social aims

(Chatterton and Cutler 2008, Aiken 2012). A number of projects are criticised for not successfully involving local people or marginalised people (Andree et al 2001, Holland 2004, Walker et al 2010). Holland (2004) analyses leadership and participation in community gardens and asks whether projects are run by the community, or for the community? In relation to community energy Walker et al (2010) describe an example of a self-titled community initiative, but where a small group have dominated decision making and the distribution of benefits. Tornaghi (2014) identifies that if initiatives are only benefitting small numbers then this is not equitable in terms of distributional justice of benefits and procedural justice of involvement in democracy. Even where projects have started as bottom-up community initiatives, it is argued that support from more formal organisations can lead to suspicion and potentially exclusion for more marginalised members (Staeheli 2008, Sadler et al 2015).

The value of supporting community-level sustainability-focused projects in action

Research supporting community-level sustainability projects has a strong focus on supporting practical activities that people are already developing and learning from what is happening on the ground (Crane et al 2013, Seyfang et al 2013, Tornaghi 2014). There is also a strong focus on social outcomes, in addition to environmental and economic outcomes. In contrast, environmental focused arguments such as by Chatterton and Cutler (2008), that the main focus of sustainability activities should be on large scale structural change, are not considering social sustainability as part of the solution to climate change. In addition, in response to questions of scale, Crane et al (2013: 73) conclude that ‘the scale involved in the notion of sustainable communities is not without its sceptics... however it is undeniable that the scale presented by community-based sustainability allows for closer examination of action-based work’. The arguments over the potential of individual behaviour change also dismiss the scope and the potential of small level changes such as reductions in energy usage (Stephenson et al 2010, Rotmann and Mourik 2013, Creamer 2015).

In addition, research into UA and community energy activities identify many practical ways they can be supported by local authorities, including methods that do not require resources, such as providing permission for UA to use land or community energy projects using solar panels to use roof space (Franklin and Marsden 2015, Martiskainen and Nolan 2015, Tornaghi and Van Dyck 2015). There is evidence of good practice approaches to supporting community-level sustainable development, such as in Wales through the

Pathfinder programme (Franklin and Marsden 2015), community gardening in Berlin, Leeds and New York (Follmann and Viehoff 2015, Tornaghi and Van Dyck 2015, Purcell and Tyman 2015) and community energy projects in Cardiff and Greenwich (Parkhill et al 2015, Martiskainen and Nolan 2015). In addition, in the UK there are increasing incentives through donor requirements (e.g. from the Big Lottery Fund or devolved Welsh and Scottish governments) to develop partnerships between local authorities and civil society, and to ensure social and environmental aims (Kirwan et al 2013, Franklin and Marsden 2015).

A contrasting point of view to these initiatives supporting the roll back of the state is that austerity policies are happening anyway, and civil society actors are displaying agency and taking opportunities to improve their communities in line with progressive localism (Featherstone et al 2012, Milbourne 2012). In relation to engagement of marginalised people, there appears to be a contrast between UA and community energy, with research into UA project particularly emphasising engagement with marginalised people (Baker 2004, Buckingham 2005, Staeheli 2008). However, there is a growing amount of research into community energy projects that is focusing on the engagement of vulnerable people (Martiskainen and Nolan 2015, Parkhill 2015)

In addition, criticisms by researchers that community-level activities should be more political may not fit well with the motivations of participants themselves and therefore could be considered exclusionary. For instance, Corcoran and Kettle's (2015: 115) study of allotments in Northern Ireland argues that people go there to escape from politics in terms of escaping from political conflict and working together with people from other backgrounds without wanting to know about each other's political or religious backgrounds or beliefs. Corcoran and Kettle (2015: 1228) describe allotments as "shared politics of space' attained through joint activities [that] fosters social integration and provides people with a means to practise co-operation' and essential sites of civil interfaces 'where barriers are dismantled, knowledge is exchanged stereotypes are challenged, empathies are generated'. Community gardening can be considered more of an 'everyday' rather than an activist activity (Milbourne 2012, Follmann and Viehoff 2015). Follmann and Viehoff (2015: 1159) describe one of the participants in the UA initiative they research: 'nevertheless Frank remains a gardener, not an activist. Political gardening – the initial motivation of the founders of the project – is still alien to him'.

The different arguments suggest a need for more learning from what is happening on the ground and which could require effective partnerships from a range of stakeholders including local government, civil society, academics and communities (Smith and Seyfang 2013, Crane et al 2013, den Exter et al 2015). It could also be argued that a consequence of a lack of learning is a shortage of quantitative evidence to make a strong case for the environmental benefits of community sustainable place-making activities. For instance, there is the potential to quantify the impact on atmospheric CO₂ from reductions in energy usage, increasing use of local food, and increase in vegetation (Hargreaves et al 2010, Stephenson et al 2010, Mason and Montalto 2015).

In addition, while there is a wide range of research into north American cities' approaches to sustainable development (e.g. Holden 2011, Sadler et al 2015, Walker 2016), there is clear scope to research case studies from UK cities. There could then be work to spread and support good practice examples (McClean and Boren 2015). Although, many would argue against any institutionalisation of good practices with risks of these solutions being seen as top-down and technocratic, closing down alternative approaches and ignoring the local context (Gibbs et al 2013, Bulkeley 2015, Walker 2016).

4.7) Conclusion: the emergence of sustainable place-making as a framework for understanding community-level sustainability in action.

Chapter 4 has explored different frameworks of community-focused sustainable development activities. Sustainable place-making emerges as a strong framework to guide the research as it prioritises improving place through the engagement of vulnerable people in realising community-level social and environmental outcomes. Sustainable place-making also has broader aims to respond to global environmental challenges such as climate change. These different individual, community and global level aims resonate strongly with the aims of the Green Prosperity project. Research into urban agriculture in particular has a strong focus on describing social, environmental and some economic outcomes with long term approaches to engagement providing a platform for people to describe how involvement in projects has benefitted them. Community energy also provides scope for economic, social and environmental impacts although there is less evidence in the research in contrast to UA and community gardening. However, there are

critical questions relating to the effectiveness of sustainable-place making activities, particularly in relation to working towards broader environmental goals.

However, researchers argue that sustainable place-making activities are actually happening and provide scope for learning. It is also argue that there should be more support for sustainable place-making including from local government to increase and sustain activities and outcomes (Holland 2004, Franklin and Marsden 2015, and Purcell and Tyman 2015).

Chapter 5) Communities, civil society and the participation of marginalised groups

The Big Lottery Fund (BLF) Communities Living Sustainably (CLS) projects had a strong focus on working with communities to help them live sustainably and supporting civil society organisations to work at a community-level. The CLS focus on supporting civil society led communities level approaches is supported by a wide range of literature (Kirwan et al 2013, Seyfang et al 2013, Creamer 2015). However, many researchers identify a need to research complexities in both communities and civil society and the interface between them (Cleaver 1999, Staeheli 2008, Macmillan 2015). Civil society governance impacts on participation of marginalised groups, project effectiveness and long term sustainability of projects and outcomes. Civil society governance is a complex area requiring analysis of a range of issues including organisational effectiveness and decision making, legitimacy and accountability and the influence of external organisations including donors and government (Choudhury & Ahmed 2002, Nunan 2010, Rotberg 2014).

5.1) Complex communities: building skills, knowledge and inclusion

In arguments for supporting community-level sustainability activities there is a focus on communities as a vehicle to create change (Aiken 2012, Crane et al 2013, Creamer 2015). 'Community' is often viewed practically as a place of operation to conduct activities and to identify which different state and non-state actors exist and how they work together (Larner and Craig 2005, Bulkeley 2015). There is also a sense that working within communities can be a place of willingness to provide care and nurture for vulnerable people (Staeheli 2008). In addition, it is argued that work at a community level can bring deeper change, for instance as a way of influencing individual behaviours (Crane et al 2013, Bradbury and Middlemiss 2015, Creamer 2015). Focusing on communities is also attractive to counter a view that communities are becoming increasingly fractured (Aiken 2012, Dean 2015, Franklin and Marsden 2015).

However, Aiken (2012) and Creamer (2015) identify that government and donors can be more focused on buy-in from the community than longer term project outcomes. There are also criticisms over how concepts of community are oversimplified in policy and how

this can have negative consequences (Staeheli 2008, Aiken 2015, Franklin and Marsden 2015). Government and donors often focus on fixed communities in a particular place. However, there are other concepts of community bringing together people of shared values or interests, such as gardeners or people involved in community energy projects, which may be drawn from a wider area than from a specific geographical community (Krasny and Tidball 2009, Walker et al 2010, Parkhill et al 2015). This means there needs to be flexibility in considering who makes up a community.

Guthman (2008) and Staeheli (2008) argue that dangers of this simplification including over-romanticising communities and instilling a sense of caring that might not be present, with governments over-relying on communities to solve problems and involve marginalised groups. For example, governments can view communities as helping citizenship and integration of refugees, but integration also needs the establishment of institutions with a deliberate focus on helping newly arrived populations transition into a new place (Staeheli 2008, Jean 2015, Platts-Fowler and Robinson 2015). Staeheli (2008) is critical of an assumption that communities are places of empowerment without deliberate work to achieve empowerment.

There is a range of research that identifies communities as a site of complexity and struggle and that there is a need to research communities, including from the perspective of marginalised groups (Guthman 2008, Staeheli 2008, Walker et al 2010). Staeheli's (2008) research discusses a range of case studies to explore the complexities of communities including a focus on a community garden in the Bronx, New York. Staeheli (2008) identifies that grassroots activists', including people from marginalised groups, can see 'community' as providing comfort and as a way of mobilising support. However, Staeheli (2008) describes 'community' as a site of contest, struggle and change, where membership is fluid and people can be included or excluded, sometimes deliberately. In the case study of the community garden, Staeheli's (2008) describes that the organisers 'argued they needed to exclude some people in order to build a safe place in which members of marginalized communities could develop as citizens'. This example can be seen as a positive example of being exclusive to invite, include and protect vulnerable people. However, Aiken (2012) argues that marginalised people are excluded from the Transition Town network as there are not attempts to include them, although this is not a deliberate act. Walker et al (2010) argues that there needs to be more intense

participation in community sustainability projects to help them achieve the level of change required. Deliberate attempts to engage 'difference' into communities can also relate to the capacity, including the skills, knowledge and experience of a group to be able to include different people (Staeheli 2008).

Building capacity and social capital

Franklin and Marsden (2015) argue there is a need to build sustainable places and communities in combination with building strong social capital, and argument supported in analysis of place-making by Dale et al (2008), White & Green (2009), and Parkhill et al (2015). Parkhill et al (2015: 5) define social capital as 'the intrinsic capacity within which individuals and their social relationships can provide the means for community action capable of achieving shared objectives'. Crane et al (2013: 88) link social capital to sustainability: 'through concepts like social capital, the notion of engagement and action in producing agency, empowerment and connection amongst actors has been identified as key to contemporary understandings of sustainability'.

Franklin and Marsden (2015: 941-942) explore three different types of social capital: bonding, bridging and linking social capital. 'Bonding capital refers to the social ties connecting social identity or group affiliation'. This could be a community of place or practice such as the participants of a community garden or community energy project. "Bridging" capital is used in reference to the external ties which connect together 'clusters of tightly bonded individuals with differing social identities'. This could be a collaboration of a range of different community garden groups. Linking capital refers to 'vertical network connections' such as where a community group works with a local authority or a large donor.

However, many communities have found it easier to develop bonding capital, which strengthens relationships within a community, but which can have negative consequences (White & Green 2009). Milbourne (2010: 159) describes how communities and places can develop the 'wrong type of social capital – bonding social capital, which is restricted to other people in similar situations in the neighbourhood, rather than bridging and linking forms of social capital that enable poor groups to connect with external networks and those in positions of power'. Schuller et al (2000: 10) argue there can be negative

consequences of bonding capital: 'bonding social capital can build strong ties, but can also result in a higher wall excluding those who do not qualify'.

The analysis of social capital considers concepts of capacity and capabilities which indicates skills, experience and knowledge requirements (Chambers 1997, Dale et al 2008, Crane et al 2013). 'Capacity building' is a term developed by Oxfam in its approach to international development and working with communities in the global south which is similar to building effective agency at a community level through access to resources, skills and training with a focus on empowerment and community development (Eade 1997, Kemper 2003).

Crane et al (2013) argue that building capacity could be required to equip communities with the capabilities to develop and sustain activities. Staeheli (2008) indicates a need to build capacity to help participation. The need for communities to develop bridging and linking social capital to bring in support from external organisations also indicates a need for capacity building (Schuller et al 2000, White & Green 2009, Milbourne 2010). For instance, capacity building could also be required to help grassroots organisations develop linking capital to obtain support from organisations such as civil society organisations and local government as argued by Franklin and Marsden (2015) and Mathers et al (2015). For instance Cox (1998) identifies that grassroots organisations may need to network in new spaces of engagement to develop effective connections. Featherstone et al (2012) and Franklin and Marsden (2015) and Mathers et al (2015) argue that without a focus on building capacity and social capital it will be community groups with existing resources, skills and experience and social capital who will be more successful in being able to develop projects and obtain funding. Civil society and civil society organisations are identified by many researchers as essential actors in building the capacity of communities to participate in community-level sustainability-focused activities.

5.2) Focus on civil society: importance, complexity and challenges

Research into both community energy and UA identifies the essential role of civil society in developing community focused projects (Baker 2004, Seyfang et al 2013, Saunders et al 2015). Studies also demonstrate the essential role of civil society in working with and supporting vulnerable people (Stephenson et al 2010, Martiskainen and Nolden 2015,

Parkhill et al 2015). For example, each of the case study examples of community energy projects working with vulnerable people researched by Saunders et al (2012), Martiskainen and Nolden (2015) and Parkhill et al (2015) were all initiated by civil society organisations. In addition, the UA projects working with refugees researched by Baker (2004) and Jean (2015) were also developed by civil society organisations. Kirwan et al (2013) identify the important role of the Big Lottery Fund in supporting a wide range of civil society UA projects in the UK. Research highlighting the importance of civil society also resonates with sustainable livelihoods focused research which emphasises the essential role of institutions and organisations in governing marginalised people's access to resources (Scoones 1998, Cleaver 2001, and Moser 2006).

Civil society: diversity and blurring of grassroots groups and civil society organisations

Civil society is 'often described as existing between the state, business and the family - civil society is characterised by diversity' (White and Stirling 2013: 7). MacMillan (2015: 103) calls for an increased understanding of the diversity within civil society, arguing that 'too often analysis seems to be reduced to a discussion involving seemingly large, abstract and disarmingly simple categories – 'state', market and third sector in which nuance, differentiation and contradiction can be lost'.

There is a difference between understanding civil society as a whole, and civil society *organisations* (CSOs). CSOs form an important part of civil society but Peck (2015) identifies that there is sometimes too much focus on understanding civil society as formal organisations, arguing that the focus on organisations reflects government and donors' needs for measurability. However, the term civil society represents a very broad spectrum of actors and institutions including protest movements, communities of practice, cooperatives, charities and social enterprises which can operate over different time and also spatial scales such as place based or virtual (Peck 2015, MacMillan 2015). Examples of civil society include the Black Lives Matter movement in the US (Peck 2015), internet-based campaign groups such as Change.org, local organisations focusing on community projects such as Incredible Edible Todmorden, through to multi-national CSOs such as Oxfam and Amnesty International.

In terms of composition of civil society in the UK, Milbourne & Murray (2017) comment that there are approximately one million civil society groups with less than one fifth

registered as charities. In line with the analysis of the number of registered charities, Aiken & Harris (2017: 334) identify that there were '162,296 organisations registered with the Charity Commission in 2013/14. Aiken & Harris (2017) then break down the number of registered charities by annual income: 5% of charities were large with an annual income of over £500,000; 24% are medium-sized (£500,000 to £100,000); 33% were small (£100,000 to £10,001) and 48% were classified as micro with income less than £10,000. This analysis indicates that over 90% of 'civil society' in the UK are either micro or unregistered organisations.

There can be significant differences between local grassroots groups and more formal organisations. For instance local grassroots groups can develop more organic and reflexive projects whereas more formal CSOs can have more rigid aims and activities (Aiken & Harris 2017). Formal CSOs may attract larger amounts of funding, employ staff and have boards of trustees and organisational documents (Chatterton and Cutler 2008, Aiken & Harris 2017). In contrast, grassroots groups may rely on a small number of volunteers and have very limited funding (Aiken & Harris 2017, Milbourne & Murray 2017). Local grassroots groups can be more focused on a specific place, whereas more formal CSOs can work across a number of locations (Peck 2015).

Larger CSOs are sometimes criticised for lack of familiarity with the local area and institutions, competition leading to lack of joint working, and the potential for CSO projects to push out more organic projects due to competition for funding (Chatterton and Cutler 2008, Peck 2015, Creamer 2015). Outside CSOs are also criticised for not representing the diversity of the local community in terms of how it recruits its staff and that this can be a barrier to participation (Agyeman 2008). Larger CSOs are also criticised for becoming increasingly apolitical and not focused on advocating for marginalised people, particularly when they seek to work closely with the government (Milbourne & Murray 2017). For example, Chatterton and Cutler (2008) criticise the Transition Town movement for being a-political and too close to government.

In the UK an increasing focus of research is the relationship between larger CSOs and the government, including in the context of the 'Big Society' policies and rhetoric (MacMillan 2015, Milbourne and Murray 2017). CSOs are increasingly targeting Government contracts for funding as access to other sources of funding has reduced since the global financial crisis of 2008, and as the Government has contracted out the provision of welfare and

other public services to CSOs and the private sector (Grint & Holt 2011, Aiken & Harris 2017, Milbourne & Murray 2017). It is argued there have been many consequences of this shift including: CSOs competing for contacts and becoming more business orientated in approach; CSOs becoming more focused on reporting on achievement of targets; and CSOs moving to locations where funding is available. This can lead to some CSOs losing their focus on working with the most vulnerable, which can require more in-depth long term approaches and resources which are not provided in some contracts, and also moving away from communities where they have historical connections (Aiken & Harris 2017, Milbourne & Murray 2017). Increased professionalisation can also limit CSOs engagement with community-level 'volunteers' (e.g. as trustees or supporting activities), which may also reduce their attachment to a particular community (Chatterton and Cutler 2008, Dean 2015). In addition, by competing for government contracts, CSOs are also criticised for allowing the state to retreat by not advocating for the needs of vulnerable people as vital services are cut – CSOs are effectively being gagged by the government threatening the future of a free civil society (Grint and Holt 2011, MacMillan 2015, Bennett et al 2015).

However, many of these criticisms of larger CSOs and the praise for smaller grassroots groups are broad generalisations and the reality of the effectiveness and challenges for both grassroots initiatives and more formal CSOs is very complex and more research is necessary (MacMillan 2015, Peck 2015, Aiken & Harris 2017). For instance, there is significant blurring between formal CSOs and grassroots groups. Analysis of the composition of the charity sector in the UK identifies that 33% of registered charities were classified as small and 48% micro in the UK in 2013/2014. Grassroots organisations can be required to register as organisations to attract funding, or can come under pressure to become more formal by donors. In addition, funding requirements can require smaller organisations to build more formal structures (Aiken & Harris 2017, Dayson et al 2017). Larger CSOs can work together with smaller grassroots organisations, and staff from larger CSOs can be part of grassroots initiatives (Larner and Craig 2005, White and Stirling 2013, Aiken 2015, Peck 2015). In addition, larger CSOs can have local chapters that operate independently as smaller CSOs (Andree et al 2015). Grassroots organisations and CSO projects also share areas of fragility, such as lack of access to funding, land insecurity and reliance on key personnel (Seyfang et al 2013, White and Stirling 2013, Aiken & Harris 2017).

Becoming a formal CSO does not guarantee funding and resources and this can impact on sustainability. For instance, Tornaghi and Dyck (2015: 1256) describe how they started an action research project that developed into a formal CSO which brought people from different backgrounds together. The project was successful in a range of ways including establishing a community garden and obtaining support from local government and creating a formal CSO. However, Tornaghi and Dyck (2015) identify that even though their organisation was formalised into a CSO, they did not attract funding for staffing and relied on a small number of individuals: 'the nature of grassroots, spontaneous and small sized initiatives make them more exposed to the contingencies in their participants lives' and that this can lead to short-lived projects as new people didn't take over when the original key players left. In addition, CSOs can advocate for policy change, but also aim to be non-political due to a need to appeal to a broad range of supporters, with Cloke et al (2016) reviewing the example of the Trussell Trust which advocates on ways to reduce food poverty but also tries to maintain a neutral political position. At a macro level, Aiken & Harris (2017) also reveal that despite CSOs competing for government contracts, this source of funds is decreasing affecting the income of larger charities and reducing their size. Milbourne & Murray (2017) also identify examples where CSOs have refused government contracts to stay focused on their core objectives to help the community.

There are also examples where both grassroots initiatives and CSO projects have been successful in areas where they have perceived weaknesses, for example many formal CSOs are effective in raising issues and challenging politics and some small grassroots groups are effective in securing local participation of marginalised groups (Andree et al 2015, Milligan and Fyfe 2015). Andree et al (2015) provide examples of blurring between grassroots organisations and more formal CSOs and how different types of organisations can be effective in different areas. Andree et al (2015: 1464) discuss the positive role of larger CSOs in Canada successfully linking findings from local food growing projects to advocacy including providing 'testimony on the inadequacy of Canada's social protection schemes, the plight of migrant farm workers, the need for a living wage, and Canada's food Aid programmes'. Andree et al (2015: 1464) also focus on how an international faith based CSO, the Young Women's Christian Association (YWCA) was sensitive to the needs of its target groups, and identified that many women it was working with were escaping domestic violence and were concerned about feeding their children and 'this led to the YWCA to set up a community garden and expand their work into food security'.

Respondents also described how the YWCA's staff were considered grassroots community workers and not representatives from an outside CSO (Andree et al 2015).

Cleaver (2003) suggests that civil society is shaped by individual agency, requiring critical analysis of the staff who lead and shape civil society and deliver projects. For instance, Purcell and Tyman (2015: 1138) describe how 800 Community Gardens in NYC have been developed by individuals and community groups and that:

‘participants in this surge of activity had diverse motives. Some considered themselves activists in a movement, engaging in civil disobedience against private property or struggling against a capitalist economy of endemic crisis. Others were less overtly and consciously political. They saw themselves simply as taking necessary steps to meet the need for food and green space in the city’.

Adams et al (2015) build on this analysis of actors and their motivations by describing macro and micro motivations, with macro motivations including challenging political systems and micro motivations including supporting participation of marginalised groups and the enjoyment of gardening. Andree et al (2015) and Larner and Craig (2005) bring a strong focus on gender and identify that many community driven projects are led by women. Andree et al (2015) focus on urban agriculture initiatives and one respondent in their research argued that ‘the food movement is really driven by female energy – by compassionate intelligent women’. However the potential role of gender is not picked up in many other studies of community-level sustainability activities. Peck (2015: 557) also identifies the importance of place in shaping local civil society and identifies how ‘geographies of place have the potential to shape the everyday lives of civil society actors, with the close attachment to certain places stimulating the political activities’.

However, despite calls for ethnographic and empirical accounts, neither Peck (2015) nor MacMillan (2015) make a clear call for research into the effectiveness of civil society. A lack of focus in the literature on civil society effectiveness could indicate an academic concern with too much measurability being imposed from institutions including donors and government (Nunan 2010, Peck 2015, Dayson et al 2017). In addition, there could also be confidentiality issues in investigating and reporting organisational effectiveness. However, evaluating civil society could provide learning which improves the effectiveness of civil society and governance in areas such as engagement, participation, decision

making and implementation and results (Dick 1999, Williams 2003, Seyfang and Smith 2013, Rotberg 2014). Choudhury and Ahmed (2002: 563) argue that research into the effectiveness of civil society should focus on civil society governance arrangements including 'legitimacy [and] service effectiveness' but also including 'democratic participation, volunteerism, and policy alliance'.

Civil society and the participation of marginalised people

The need to increase engagement of people to tackle climate change is identified by a range of researchers to democratise responses, involve local knowledge and also to help change unsustainable behaviours (Pearsall 2012, Crane et al 2013, Creamer 2015). There is also a specific need to involve people in more deprived areas as part of wide scale engagement but also as a crucial part of work towards social sustainability (Agyeman 2008, Milbourne 2012, Walker 2016). However, it cannot be assumed that all groups and activities include participation of marginalised groups as an aim, or that all groups have the capacity to achieve this (Holland 2004, Staeheli 2008, MacMillan 2015).

In addition, there could be differences between projects in the US and in the UK. For instance, there are many cases of BME populations in North America developing UA and community garden projects to tackle food, social and environmental injustices (Staeheli 2008, Walker 2016). However, there seems to be less history of this bottom-up demand and development from marginalised groups of community gardens in the UK with many projects working in disadvantaged areas supported by CSOs and donors (Milbourne 2012, Kirwan et al 2013, White and Stirling 2013).

An effective community development approach is described as one which both addresses needs, but also recognises that disadvantaged people have the potential to find solutions to issues with some support (Dale et al 2008, Howard and Wheeler 2015). Continuous engagement of the local community is also seen as central to long-term sustainability of projects (Holland 2004, Bradbury and Middlemiss 2015). This also places an emphasis on projects providing an opportunity for local communities to input their skills, experience and knowledge, as demonstrated in the contribution of refugees to UA and community gardens (Baker 2004, Harris et al 2013, Jean 2015). The focus on community development approaches on empowering local communities to provide knowledge and solutions is particularly important in understanding that marginalised people are not passive victims of

change, but have agency to tackle issues (Kabeer 1999). However, in some cases projects work towards participation is considered as a form of empowerment, without working to address some of the key needs such as health and education, and also skills and confidence, which provide a platform for effective participation (Cleaver 1999).

If a project working to address some local needs, lack of participation can be due to other factors including projects not researching the local context and creating institutional participation techniques that are not relevant to the local population (Cleaver 2003, Porter and Lyon 2006). In relation to community energy, Lorenc et al (2013) and Parkhill et al (2015) identify the need for ongoing one to one approaches to build up trust and rapport and discuss the benefits of involvement.

Research is required on how to engage people from the perspective of vulnerable people themselves, such as through their existing networks or the appropriateness of approaches including group work or a more one to one focus (Cleaver 1999, Williams 2003, Matthews 2012). For example, engagement of young people may need a different approach than older people (White and Green 2009, Arnot et al 2012, iWill 2015). An issue arising from the analysis of UA is that it could be more geared towards older people (Bhatti et al 2009). In the UK, a number of evaluations identify that participation of disadvantaged groups in projects can be particularly difficult in deprived urban areas (Williams 2003, Lorenc et al 2013). For instance, research into community energy projects identify there can be reticence from vulnerable people to become involved, including due to issues of stigmatisation (Saunders et al 2013, Reid et al 2015). Reid et al (2015) identify that stigma can work both ways in terms of residents not wanting to be seen as fuel poor, but also that residents may not want to take part in community energy schemes because they could be viewed as being too elitist. Stigmatisation is also alluded to by Hargreaves et al (2013b) who identify that in their research people on low-incomes did not want to be made to feel guilty for using electrical appliances, especially when they compared their consumption to large organisations. A further issue affecting working in deprived areas is that projects can be viewed as failures in comparison with other projects due to difficulties in engaging local residents which can lead to slower achievement of outcomes. This view ignores the challenging local contexts in which some projects work (Matthews 2012).

Taking the example of working with young people, White and Green (2009) identify the importance of working with young people, including in Hull, through place based social

networks in close proximity to where young people live. A survey in 2015 focused on learning from young people on barriers to engagement reinforced the findings of White & Green (2009):

‘in 2015 42% of young people participated in social action at least every few months, or did a one-off activity lasting more than a day, and recognised the benefits it had for themselves and for the community or cause they were helping. Yet.....there are sociodemographic differences in participation. Significantly, those from less affluent backgrounds (C2DE) are participating less than those from most affluent backgrounds (ABC1) – 45% compared to 39% respectively. The same study found that the majority (68%) of young people who weren’t involved could think of at least one factor that would motivate them to take part, namely, if they could do it with family or friends, or if it was close to where they live’ (IWill 2015).

However, while recognising that there can be difficulties in working with hard-to-reach groups and in deprived areas, it is also important to recognise that marginalised people can be equally motivated by issues relating to climate change. There is a belief that disadvantaged communities are not as interested in tackling climate change (Guerin et al 2001, Ambrosius and Gilderbloom 2015). However, Ambrosius and Gilderbloom (2015: 846) identify that ‘Countering some claims, residents of single family homes also exhibit significantly higher levels of environmental behaviour and concern than those residing in apartments and condominiums’. Researching the European context, Guerin et al (2001: 197) identify that ‘it is worth pointing out that socio-demographic variables account for only a small portion of the variation in conservation behaviours’.

Therefore there should be deliberate attempts to engage marginalised groups as part of a long term approach (Holland 2004, Matthews 2012, Kirwan et al 2013). A key issue is whether civil society is working on issues that resonate with the local population, build capacity and help vulnerable people develop effective agency and sustainable livelihoods (Cleaver 1999).

Volunteers as a form of engagement

Many organisations work with volunteers as a way to engage with local residents, as a way to benefit the volunteers, or to bring in expertise into an organisation (Milligan and Fyfe 2005, Cloke et al 2016). Choudhury & Ahmed (2002) argue that engaging volunteers from

the local area can help participation and also add legitimacy. Volunteering also enables local residents to input skills and time into helping their local community's development (Bussell and Forbes 2002, Milligan and Fife 2005, Staeheli 2008). There can be direct advantages to the volunteer with research identifying many examples where people have used volunteering opportunities to develop job skills and access employment or to develop social networks to strengthen resilience (Larner and Craig 2005, Perry et al 2013). Larner and Craig (2005: 17) quote a respondent in their research: '[the volunteering opportunity] gave me, and many other women in the community, the opportunity for personal growth through the training programme. That was a major turning point for me and set me off on an unintended career path'. Larner and Craig (2005) also have a strong gender focus identifying how volunteering can help women with family caring responsibilities find appropriate work.

Dean (2015: 145) identifies volunteering's contribution to the community: 'the value it adds to society, particularly in terms of the unpaid caring responsibilities, volunteering fills gaps that the market cannot, and provides services the state is unwilling to provide or unable to afford'. This quotation also links the value of volunteering to concepts of de-growth and decarbonisation identified by Bauhardt (2015) who focuses on caring responsibilities. In addition, Milligan and Fife (2005) also link the potential to engage and support volunteers over the long term to help achieve forms of project sustainability (survival and continuation), which could be very important once funding for a project finishes. However, there is other research that describes the fragile sustainability of volunteer-led projects and how many grassroots organisations need professional support and funding (Aiken 2012, White and Stirling 2013, Tornaghi 2014).

However, it is identified there are a number of trends negatively impacting on 'traditional' volunteering. Dean (2015) describes how an increasing dominance of neo-liberal individualist lifestyles is fracturing communities and reducing altruism. In addition, there are also more concrete trends including reduced funding for CSO programmes, increasing engagement of CSOs on government contracts, and increasing professionalisation of volunteer roles which result in fewer accessible volunteering opportunities (Milligan and Fife 2005, Aiken 2012, Riehle et al 2014, Crisp 2015). For instance, Milligan and Fife (2005: 417) describe how increasing professionalisation can impact on local engagement and empowerment through placing additional formal responsibilities on volunteers, requiring

training, management and reducing flexibility and informal social interaction. They describe 'the tensions voluntary associations face between organisational growth and restructuring in order to provide good quality services, on the one hand, and the positive engagement with volunteers and empowerment of local people on the other' and identify an example of a growing trend of volunteers managing other volunteers.

However, while reducing funding and increasing professionalisation could be seen to reduce volunteering opportunities, there could be scope to widen concepts and definitions of volunteering. For example, in the UK, some unemployed people have access to Work-Clubs where 'clients' are encouraged to 'volunteer' on community projects (Bussell and Forbes 2002, Crisp 2015). In this case, 'clients' could be seen to be members of a local community who come to a project through more formal referrals from health or government bodies. For instance Crisp (2015) identifies how volunteering in Work-Clubs can fill a gap between worklessness and finding a full time job and can be particularly effective for the individual by reducing isolation and tackling mental health issues and at the same time engaging people in giving back to their local community. A number of civil society organisations are also working with health-clients in line with a social prescribing approach (Kimberlee 2015), and some regular clients could also be considered volunteers.

Engaging vulnerable people from marginalised areas would also help counter a belief that volunteering is both endangered and increasingly becoming more dependent on a middle class, well-educated and a better resourced 'civic core' (Anheier and Salamon 2001, Mohan 2011, Dean 2015). This analysis could also imply that more middle class communities are more altruistic and feed into a negative discourse on disadvantaged communities taking from society and not giving back (Featherstone et al 2012, Crisp 2015). For instance, Dean (2015) is critical of volunteering being increasingly focused on helping people to develop employment skills, but using volunteering as an opportunity to gain full time employment could be a major priority for people on limited incomes.

Civil society: the need for funding and impacts on long-term sustainability

Funding is a key issue affecting civil society's potential to develop and support community-level initiatives. Many civil society organisations (CSOs) require funding for employing skilled staff, project implementation and purchasing of equipment or land (Holland 2004, Seyfang et al 2013). Community energy projects require funding for renewable energy

installations such as solar panels and other smart technologies (Saunders et al 2011, Seyfang et al 2013, Parkhill et al 2015). UA and community gardening projects may require less capital resource inputs than community energy projects, but could require funding to meet the initial costs of securing land and ongoing costs of developing land and growing food (Kirwan et al 2013, Creamer 2015, Andree et al 2015). Funding is also required for engaging with the local community and meeting health and safety requirements, meeting volunteer expenses, and costs of holding community focused activities (Milligan and Fyfe 2005, White and Stirling 2013). Funding would also be required for attending professional workshops, facilitating local partnership meetings, and conducting monitoring and evaluation.

However, in the UK, civil society funding has been critically affected by both the global financial crisis of 2008 and the subsequent austerity driven cuts to public expenditure (Aiken & Harris 2017). As described earlier, funding from both Central Government and donors is reducing and increasingly competitive with CSOs surviving from grant to grant and constantly focused on finding funds (Milbourne 2012, Andree et al 2015, Aiken & Harris 2017). In addition, core funding to cover organisational costs is increasingly difficult to find, leading some CSOs to try to survive on programme implementation costs (White and Stirling 2013, Creamer 2015, MacMillan 2015).

Sources of funding for UA and community gardening: relying on the Big Lottery Fund

In England, Milbourne (2012), Kirwan et al (2013) and St Clair et al (2017) identify the highly significant role of the Big Lottery Fund (BLF) in funding UA and community garden projects. There is very little research focusing on UA and community gardens in England that describes any other large scale funding sources suggesting there is an unhealthy reliance on the BLF. The funding picture is different in Scotland and Wales where funding has been made available through the devolved governments (Creamer 2015, Hunt and de Laurentis 2015).

Between 2008 and 2014, the BLF funded English UA and community gardening through three major funding streams: the Local Food Fund, a £60m project supporting 29 projects which aimed to make local food accessible and affordable to local communities; Making Local Food Work was a £10m fund focused on community food enterprises; and Food 4 Life was aimed at increasing food growing in schools and also funded research projects

(Kirwan et al 2013). From 2013 to 2017, UA activities were also supported as part of the BLF CLS project (St Clair 2017). The BLF has particularly targeted deprived areas and brought in social aims (Milbourne 2012, Kirwan et al 2013, Big Lottery Fund 2016a). For instance, the Local Food Fund aimed to 'build community capacity through facilitating community cohesion, healthy eating, educational enhancement and integrating disadvantaged groups into mainstream society and economy' and which also included an aim to improve neglected land into food growing areas (Kirwan et al 2013: 830).

BLF funding has focused on supporting grassroots and civil society organisations, leading to the emergence, formalisation and strengthening of a large number of groups (Milbourne 2012, White and Stirling 2013). However, the funding was not only provided to implementing CSOs, with some funding provided to a range of intermediary organisations, such as Groundwork and the Wildlife Trust to oversee grants, support smaller CSOs and capture learning (Milbourne 2012, Kirwan et al 2013, White and Stirling 2013).

However, there are contrasting views on the effectiveness of BLF programmes. Kirwan et al (2013) argue that the Local Food Fund's work in deprived areas was largely successful. However, where projects have successfully obtained BLF funding, large amounts of funding provided over short funding cycles creates difficulties for the long-term sustainability of projects and actors once funding cycles have finished (Kirwan et al 2013, St Clair et al 2017). For instance, St Clair et al (2017) describe how a therapeutic community garden funded in the BLF CLS funding stream was returned to its owners for development after BLF funding finished. However, Kirwan et al (2013) and St Clair et al (2017) do not focus in detail on how BLF funding affected the implementing CSOs.

There is other research into BLF funding that also presents a complex picture of how BLF funding has impacted on civil society. Petchey et al (2008) research the role of BLF in supporting community-level cancer care in the UK and argue that the BLF was an essential source of funding without which projects may not have taken place, and which therefore enabled the provision of services to vulnerable people. Petchey et al (2008) also identified that the length of funding provided CSOs with a safe time period and space to implement and learn from activities. In addition, 83% of CSO projects researched by Petchey et al (2008) received continuation funding to continue their work after initial funding had finished. Petchey et al's (2008) analysis suggests that BLF funding provides organisations with time and space to work with vulnerable people and also financial security, and

resonates with analysis of BLF funding for UA projects by Milbourne (2012) and Kirwan et al (2013). However, there are conflicting views that BLF funding comes with increased management and compliance obligations that require organisations to become more professional in approach (McKinney & Kahn 2004). It has already been argued that increased professionalisation can lead to a disconnect with target communities through reducing scope to work with the most vulnerable and reducing engagement with volunteers. In addition, large BLF grants can be disproportionate to other sources of income and too much for some organisations to manage effectively. The receipt of a large grant and the consequent changes can also impact on how CSOs are perceived by partner organisations and community groups (McKinney & Kahn 2004).

In addition to grants, the Lottery also funded capacity building programmes for charities to help charities become more professional and 'effective' (Dayson et al 2017) and BLF has also supported CSOs to move towards social enterprise models (Tornaghi 2014), and again, both these approaches carry a danger of increasing the disconnect to helping vulnerable people. If CSOs want to resist these dangers, Dayson et al (2017: 154) identify there can be significant consequences if a charity does not respond to the needs of donors, including the BLF: 'it is argued that a third sector organisations life chances are enhanced if it conforms to the norms and expectations of important actors and institutions in that environment, and that by developing ties to important actors and institutions in that environment it can achieve legitimacy [and] support for its work'. McKinney & Kahn (2004) also indicate there could be significant consequences of failure as a charity which fails to use the BLF funding effectively will not be able to access other sources of funding.

Many of these concerns with BLF funding resonate with criticisms raised of the consequences of close working relationship between civil society and the government. This may not be surprising as the Lottery was set up by the government and relies on the government to continue to support it through the National Lottery, provide policy direction and oversight on its expenditure (Petchey et al 2008, NCVO 2016). For instance, Birtwhistle (2016) identifies that in 2016 the Government published policy directions for the Lottery and 'In short, they tell us what BLF can fund, how they can fund it, and what they require of those that they fund'.

However, while there is debate on the dangers of (over) reliance on BLF funding (McKinney & Kahn 2004, Kirwan et al 2013, St Clair 2017), there is little analysis in the

literature of how organisations can adapt from receiving a large BLF grant to receiving no funding and how this would affect working with vulnerable people.

Other sources of funding

In contrast to UA and community garden projects which are heavily reliant on BLF funding, many community energy schemes have received Central Government funding in the form of grants to purchase technology (Seyfang et al 2013). However, Seyfang et al (2013: 985) indicate that there has been:

‘a shift in the form of governmental financial support, from grants for the capital costs of installing equipment to clean energy cash back schemes (e.g. the Feed in Tariffs for low carbon electricity and the Renewable Heat Incentive for renewable heat payments) would reduce one of the key funding opportunities for community energy projects’.

More recent research by Parkhill et al (2015) and an article in the Guardian (2016c) argue how this shift has critically reduced the scope and number of community energy projects, together with the abolition of DECC. In addition, the BLF CLS funding stream (including Green Prosperity) provided funding for revenue costs, but not capital costs of renewable energy equipment and community energy projects were a smaller part of CLS projects than UA and community gardening.

The Scottish and Welsh Governments provide funding to CSOs working to reduce fossil fuel emissions with a focus on community energy initiatives. Creamer (2015) reviews the Scottish Government’s Low Carbon Communities initiative (2010 to 2012) and argues that the initiative has a focus on building communities to help achieve behaviour change and sustainability, but less of a focus on working in marginalised areas to involve disadvantaged people. Creamer (2015) presents information from an external evaluation into the funding programme which is critical of the Scottish Government’s focus on trying to achieve behaviour change in short term projects. This raises issues as to the motivations of donors and how this influences projects. For instance, if a donor has a focus on behaviour change but this is not successful then this could affect the potential for any future funding. In conclusion, Creamer (2015) describes fundraising as a ‘*double edged sword*’ in terms of tying civil society to specific targets which could be disconnected from their original goals, short time frames reducing scope for project development and

planning for sustainability, and the competition for funding reducing joint working between CSOs and increasing the potential for duplication.

The constant seeking of funds can also reduce CSO's focus on programme delivery and retaining fundraising staff rather than project staff (Creamer 2015). Grant application requirements can also put grassroots groups at a potential disadvantage if they do not have application writing skills, or if they are required to demonstrate a track record of project delivery or to have a functioning Board of Directors (Milbourne 2012, Kirwan et al 2013, Aiken 2015). In addition, larger CSOs can be better equipped to deal with funding shortages during application processes through having reserves or being able to move resource from other projects (White and Stirling 2013).

Long-term sustainability: raising income and other critical issues

Long-term sustainability of civil society actors and their projects is essential to community-level activities being able to implement and develop their environmental, social and economic aims and place-making objectives (Mathers et al 2015). For instance, any improvements in agency and livelihoods for vulnerable people could be temporary if projects were to finish (St Clair et al 2017). However, long-term sustainability is also very difficult to achieve (Seyfang and Smith 2013, White and Stirling 2013, Creamer 2015). Hargreaves et al (2013a: 868) argue that the major aim for many community projects is 'simply surviving'.

Securing external funds is a key determinant of long-term sustainability (Seyfang et al 2013, White and Stirling 2013, Creamer 2015). However, securing funds has become increasingly difficult due to the 2008 global financial crisis and austerity driven cuts to government expenditure and there is an unhealthy reliance on government contracts and the BLF. But in addition to securing external funding, long-term sustainability is also influenced by a range of other issues relating to CSO governance including project effectiveness, participation and engagement, and the development of networks and alliances (Choudhury and Ahmed 2002). Funding and governance issues can also reinforce each other in that poorly performing projects are then less likely to secure future funding (McKinney & Kahn 2004). Short project timescales, responding to donor funding streams, can also reduce the potential for planning for long-term sustainability (Kirwan et al 2013, Creamer 2015, St Clair et al 2017).

In the context of funding, White and Stirling (2013) identify two key trends where CSOs try to diversify funding income away from donor grants. White and Stirling (2013) identify that CSOs can aim to raise income from social enterprise models, with Seyfang et al (2013) demonstrating that community energy projects have had some success in this area. McGovern (2014) describes how the BLF has funded organisations to become social enterprises. However, McGovern (2014) goes on to argue that many smaller organisations do not have the skills and resources to become social enterprises. In addition, there is little evidence in the literature of socially focused UA and community garden projects generating their own income (Holland 2004, St Clair 2017). In addition, social enterprise approaches focusing on raising income have already been criticised for excluding the poorest who cannot afford to pay for services (Dey and Steyeart 2010, Tornaghi 2014).

There is the potential for funding to be obtained from government and statutory organisations through service provision contracts. There is evidence of funding being made available through public health for both UA and community energy projects focusing on improving health and well-being (Lorenc et al 2013, Seyfang and Smith 2013, Andree et al 2015). For instance, there is a growing trend for community gardens to provide a formal caring role for 'clients', such as people with mental health issues who can have a personal care budget accessed through the local authority, with some areas piloting social prescribing approaches (Kimberley 2015). There is also increasing potential for community-level initiatives to diversify into other funding streams such as through education to support schools, which suggests there is potential to pull in support from different stakeholders to meet different outcomes (White and Stirling 2013, Seyfang and Smith 2013, Andree et al 2015).

However, if funding cannot be secured, smaller civil society groups such as grassroots organisations have less access to other resources, including financial reserves to continue to retain staff and premises, than larger organisations (White and Stirling 2013, Tornaghi and Van Dyck 2015). When funding finishes small organisations may be reliant on volunteers to continue them and in this scenario, projects with low resource requirements, such as use of volunteers and low technological inputs, are more likely to continue than projects with high resource requirement. But activities are vulnerable if volunteers cannot maintain their commitment (Tornaghi and Van Dyck 2015, Creamer 2015).

Ensuring participation of the local residents has been an important theme running through this analysis of sustainable place-making and long-term sustainability can also be dependent on participation from the local community. Participation from the local community can be important to demonstrate the relevance to potential donors, but also in terms of engaging and involving new members on a continuous basis, adding legitimacy to activities (Choudhury and Ahmed 2002, Milligan and Fyfe 2005, Follmann and Viehoff 2015). In addition, engaging participants and volunteers can help share skills and build the capacity of new members to continue activities. Bradbury and Middlemiss (2015: 809) argue that 'in order for grassroots associations to help create sustainable communities... there need to be frequent opportunities for newcomers to actively engage with others in community activities and engage with old timers'. In their analysis Bradbury and Middlemiss (2015) identify the importance of learning by doing as part of an everyday activity and argue that the long term nature of gardening, securing land, building soil, cultivating plants and also involving the wider community gives it a solid basis as a sustainable activity (Purcell and Tyman 2015).

It is also argued that threats to long-term sustainability place importance on bridging and linking social capital with larger organisations, such as donors, project intermediaries and local government to help access other resources (Cox 1998, White and Stirling 2013, Franklin and Marsden 2015). Building connections also links into wider concepts of long-term sustainability that project activities should be scaled up and diffused to involve more actors and influence wider systems and policies over generations (Holland 2004, Seyfang and Smith 2013, Kirwan et al 2013, Franklin and Marsden 2015). For instance, in relation to the sustainability of Local Food Networks (LFNs), Kirwan et al (2013: 837) conclude that 'if LFNs are to meaningfully influence the mainstream, the actions of individual initiatives need to be better coordinated and aggregated: in addition their ability needs to be more clearly and forcefully articulated to policy makers'.

The need for long-term sustainability links to wider concepts of sustainability in that projects may need to achieve a combination of economic, environmental and social outcomes to be able to continue over the long term (den Exter et al 2015, Hjerpe et al 2015, Miller 2015). Many community-level projects have good participation from marginalised groups and help improve the local environment, achieving social and environmental outcomes, but need ongoing funding support to become economically

sustainable (Holland 2004). Conversely Walker et al (2010) identify a financially successful community energy project, but one which could lose support unless it is able to engage more with local residents. Achieving a balance of social, environmental and economic outcomes could also be essential to engage communities, develop wider networks and obtain political support (Choudhury and Ahmed 2002, Walker 2016).

5.3) Conclusion: Supporting sustainable place-making as an essential step towards sustainability

Chapters 3 and 4 identify a need to prioritise social aims within a more balanced approach to sustainable development, to more effectively respond to climate change and to develop a more social, environmental and economically sustainable society (WCED 1987, Agyeman 2008, Bulkeley 2015).

Cities are identified as particularly important in sustainable development and action against climate change (Milbourne 2012, Bulkeley 2015, Purcell and Tyman 2015). Cities are important for a wide range of factors. Urbanisation is a key population trend and increased living density can help tackle climate change (Ambrosius and Gilderbloom 2015). Cities also contain a vibrant mix of state and non-state actors (Bulkeley 2015, Purcell and Tyman 2015). Cities are also places of inequality and disadvantage, where there are disproportionate levels of worklessness, poor housing, mental health issues, crime and people in care (Milbourne 2012, ONS 2015, Porter et al 2015). The literature provides examples of more prosperous cities with resources, particularly in North America, that have embraced sustainable development as a concept, although social and environmental aims are not always equal to economic aims (McCann and Temenos 2012, Crane et al 2013, Purcell and Tyman 2015). However, there is less evidence of support for sustainable development from cities in the UK (Franklin and Marsden 2015, Jonas et al 2016).

There is an increasing focus on the potential of community-level sustainability-focused activities to engage people and create change as examples of sustainability in action (Holland 2004). Sustainable place-making is presented as a framework which involves local communities to tackle climate change in combination with working towards social, environmental and economic benefits at individual and community levels (Holland 2004, Crane et al 2013, Franklin and Marsden 2015).

In particular there is strong evidence from the research on the effectiveness of UA and community gardening in engaging marginalised groups and bringing benefits for individuals and communities including health and well-being, developing skills and confidence, building on a connection between enjoying gardening and working with others in natural spaces (Ferris et al 2001, Holland 2004, Bhatti et al 2009). UA and community gardening can also help local communities challenge environmental and social injustice with a connection between increasing empowerment, improving the local environment and reducing disadvantage (Staehele 2008, Milbourne 2012). There is less strong evidence of benefits from community energy to marginalised groups, although a range of research suggests that there are possibilities to reduce fuel poverty in particular (Seyfang et al 2013, Martiskainen and Nolan 2015, Parkhill et al 2015). However community energy projects have a strong connection to reducing the use of fossil fuels (Saunders et al 2012, Seyfang et al 2013, Parkhill et al 2015). Reducing fossil fuels through reductions in energy usage bring in concepts of behaviour change (Rotmann and Mourik 2013). In addition, Andree et al (2015) and Mason and Montalto (2015) suggest UA and community gardening could have beneficial global environmental impacts, although quantitative evidence is very limited. There is also a gap in the literature identifying impacts at different levels where projects work across a range of sustainability-focused interventions, for instance combining UA and community energy.

Civil society is described as a leader in developing sustainable place-making, in terms of implementing activities, engaging communities and working to sustain activities over the long term (Seyfang et al 2013, Franklin and Marsden 2015, White and Stirling 2013). Civil society is very diverse and therefore emerges as a key area to research including governance of projects, effectiveness of approaches of working with communities and engaging marginalised groups, and the impact of donors (Cleaver 1999, Peck 2015, MacMillan 2015). The impact of donors is particularly important as many civil society groups are reliant on external funding for continuing their activities and this threatens their survival and the long term impact of their projects (Holland 2004, Kirwan et al 2013, White and Stirling 2013). Long-term sustainability, in terms of survival and continuation, is essential to be able to embed benefits over the long term, measure effectiveness and share and incorporate learning (White and Stirling 2013, Kirwan et al 2013, Creamer 2015). In response, many civil society organisations try to develop networks and alliances to help

ensure policy support for sustainability (Choudhury and Ahmed 2002, Smith and Seyfang 2013, Franklin and Marsden 2015).

Many academics call for wider engagement from central and local government to support sustainable place making activities including building a clear picture of what is happening on the ground, supporting activities through expertise and funding, and facilitating learning (Holland 2004, Franklin and Marsden 2015, Creamer 2015). However, it can be very challenging to obtain support from local government due to lack of resources, and lack of policy direction and support from central government (Franklin and Marsden 2015, den Exter et al 2015, Hjerpe et al 2015).

There are also other important concerns that need to be considered. Chatterton and Cutler (2008) question the scale of environmental impacts from community-level initiatives and also indicate that the need for structural change requires activists to work in opposition to current neo-liberal government policies. Approaches to change behaviour are also seen as ineffective and a continuation of top-down neo-liberal approaches that seek to avoid more effective government action (Shove 2010). Local community projects are also questioned for supporting the roll-back of the state, with Ferris et al (2001) outlining the example of community gardens providing mental health care for patients who should be treated by the government.

Despite the criticisms, it is argued that community-level sustainability projects are happening examples of sustainability in action and there should be a focus on learning from research to guide support (Holland 2004, Franklin and Marsden 2015). The Green Prosperity project is an example of sustainability in action and sustainable place-making emerges as a strong framework to guide the research. The literature identifies that research into sustainable place-making needs to consider how to engage communities including marginalised groups, a better understanding of the role of civil society organisations and donors, the potential for support from local government in cities especially declining post-industrial cities, and how to enable activities to be sustainable over the long term (Franklin and Marsden 2015, Bulkeley 2015, Creamer 2015). Most importantly, there is a need to explore the outcomes of sustainable place-making at different levels including for individuals, communities and as a potential method to tackle climate change. A focus on exploring outcomes requires an emphasis on bringing out the voices and perspectives of local communities and staff involved in projects (Long 1992).

The following chapter describes the methodological tools and approaches used to explore these issues and bring out participants perspectives.

Chapter 6) Methodological approaches and the influence of Green Prosperity project

Introduction

The Green Prosperity (GP) project was the case study for the research. My PhD research was combined with a monitoring and evaluation (M&E) role for the GP project, with the GP project also funding the PhD. The GP project staff helped direct the research and research findings were fed back on an ongoing basis to project management, staff and wider stakeholders including the project donors. The research started in February 2014, approximately one year after the GP project began and was conducted for two years during the project and less intensively for another nine months after the GP project had completed. This chapter tells the story of the research.

I used a grounded theory approach to allow themes to emerge from the project, particularly from stories and perspectives of participants and staff, but supported by quantitative analysis of data produced through the project. The focus on collecting data during the project and after its completion enabled me to investigate project outcomes for marginalised people, governance issues and to track long-term sustainability. Due to ongoing access to project staff and beneficiaries, my qualitative research was mainly based on semi-structured interviews with staff and volunteers at different stages during the project and after the project was completed. I conducted over 160 interviews with some staff and participants interviewed more than once, with 110 of these interviews recorded. Quantitative research included statistical analysis of a recycling focused survey of 1,000 respondents and the collection and analysis of other project data on participation in activities and outcomes.

Throughout this chapter I describe how my role with the GP project, and the influence of GP staff and volunteers, influenced my methodological approach and tools, before providing a detailed account of the qualitative and quantitative work conducted. I also describe some of the limitations to the research. I reflect on how the use of semi-structured interviews with staff and participants at different stages of the project allowed me to build trust and rapport, but I also had to compromise this approach with the needs of the project. At the end of the chapter I explore positionality in more depth and describe

the challenges presented by trying to conduct an objective evaluation as an embedded researcher including ethical challenges and limitations. I also consider the benefits of conducting research which feeds into an ongoing project trying to help marginalised groups.

6.1) Methodological approaches and tools

The methodological approaches and tools were heavily influenced by combining the PhD research with feeding ongoing monitoring and evaluation information into the GP project, with the project forming the case study for my research (Cousins 2005). The project paid for my research and expected me to be focused on its needs. The project was particularly fluid and active in a number of areas and continuously tested, implemented and adapted a range of different activities including urban agriculture (UA), community energy, and a waste recycling survey, which provided a platform for both qualitative and quantitative data collection.

Since the project was continuing to develop activities as the research started, my methodological approaches and tools needed to be flexible to respond to how the project developed, what activities it would focus on, and who it would work with. In addition, project management, CLS stakeholders, staff and beneficiaries were also interested in guiding the research and I needed to develop approaches and tools with direct input from project staff and stakeholders on an ongoing basis.

My approaches, tools and analysis were also influenced by my own autobiography and positionality. I had worked within civil society overseas and was interested in researching civil society in the UK context. I also wanted to conduct research directly with target groups including qualitative research which brought out the voices of marginalised people, and I wanted to research the interface between the project and the people it worked with (Long 1992, Cleaver 1999). The project also provided scope to develop my knowledge of local sustainable place-making projects and the role of civil society. I influenced the research through developing research objectives, conducting the interviews and analysing the data (Twyman et al 1999, Dickie 2003, Sultana 2007). For instance, internal governance became an important theme as I was interested in how this impacted on project effectiveness and sustainability and found that this was also gap in literature. I also have

experience in working with civil society to improve internal governance, and I was also able to draw out responses from staff in this area through being able to probe on certain issues.

Flexible grounded theory approach

Reflecting on the needs of the project and my autobiography and positionality, I chose a broad and flexible grounded theory approach closely related to the project objectives, but I continually reviewed my research aims and objectives as data and perspectives from stakeholders were obtained (Mayoux 2006, O'Reilly 2009). Creamer (2015: 987) also used a grounded theory approach to understand the local interpretations of sustainability and community and to allow 'themes to emerge unrestricted by preconceptions, frameworks and theories', with my research also focusing on allowing themes to emerge from participants and staff.

Grounded theory is also in line with a mixed methods approach using multiple data sources including qualitative and quantitative data, published literature, and organisational reports, to develop findings over time (Baker et al 1992, Goulding 1998, Khagram et al 2010). This approach can be particularly effective for external evaluations of fluid projects to identify both anticipated and unanticipated outcomes (Patton 1994, Dick 1999).

There are, however, different interpretations of grounded theory. For example, Creamer (2015) avoids developing a conceptual framework in contrast to other grounded theory approaches which develop a framework to guide research and interpret findings (Baker 1992, Khagram et al 2010). In addition there is also a view within grounded theory that data collection can reach a point of saturation (Baker et al 1992, Goulding 1998). However, there is often scope for continuous data collection in extended or longitudinal studies to measuring impacts over time (Goulding 1998). In addition, a number of academics argue that grounded theory should focus on individuals as the centre of research and studying the world from their perspective (Goulding 1998, Cousin 2005, Khagram et al 2010).

While some observers are very critical of blurring and misrepresenting approaches and argue that this leads to research that lacks rigour, grounded theory has developed as a flexible approach (Baker et al 1992, Goulding 1998, Creamer 2015). I adopted a flexible interpretation of grounded theory as it was very hard to stick rigidly to a methodology

when also trying to respond to the needs of a fluid project and the target groups it works with (England et al 1984, Baker et al 1992). Rather than conduct the research solely from the perspective of marginalised groups I tried to incorporate the views of different project participants, including marginalised groups, staff and other stakeholders to consider the impacts of organisations and institutions as actors and the interface between organisations and people (Long 1992, Scoones 1998, Cleaver 1999). Rather than develop a conceptual framework, I developed a flexible visual tool containing key themes and findings, and how they relate to each other, to help guide the research and develop findings which could be adapted over time (Ager and Strang 2008). In addition, I did not reach a point of saturation as the research continued to consider whether different project activities were sustainable after funding had finished (Bell and Stanley 2005). However, I decided to stop research by the end of 2016 as I felt I had enough findings to conclude my research combined with a range of practical issues including: focusing on writing the thesis; my M&E role with the project had completed; and funding for my PhD would also finish.

Evaluations, collaborative research and case studies

Collaborative research between academics and practitioners, such as civil society, is strongly advocated to reveal the complex realities of civil society and sustainable place-making, to provide and disseminate learning to wider networks and policy-makers, and potentially generate more appropriate forms of support (Creamer 2015, Peck 2015, MacMillan 2015). There are therefore strong links between collaborative research, case studies and evaluations, with Cousin (2005: 422) describing the use of '*intrinsic*' case studies to focus on developing a deep understanding of organisation or project activities and experiences. Adams et al (2015: 1235) identify how researching a case study over an extended period of time provides greater opportunity to monitor, follow-up and reveal complex decision making and complex outcomes. Case study approaches can provide rich evaluation and effective material including a focus on the views of staff and participants which may be missed from more rapid approaches (Patton 1994, Dick 1995, Cousin 2005).

There are also arguments that there should be more collaborative research and that civil society organisations should be more focused on learning as well as 'doing' (Chambers 1994, Wallace 1997, Quarles Van Ufford 2003). For instance, Seyfang and Smith (2013) describe the importance of research and evaluation to identify both anticipated and

unanticipated outcomes, and how this can open up support from different stakeholders including donors. For example the identification of health and well-being benefits from UA activities could lead to support from public health organisations (Seyfang and Smith 2013).

However, there is also research which illustrates dangers of monitoring and evaluation, including becoming too focused on measurability and rigid institutional indicators which may have been imposed on an organisation, which in turn can affect the flexibility of civil society (Milligan and Fyfe 2005, Peck 2015). Peck (2015) also raises a key issue about whether evaluation is driven by external or internal forces, with external evaluations potentially imposed by donors or governments. Externally driven evaluations can be challenging for staff and participants who may fear for the future of a project or organisation. Alternatively, external evaluations can become too superficial if there are limits on scope, length and methodological approaches, restricting efforts to obtain information from staff, beneficiaries and wider stakeholders (Crisp 2015, Peck 2015, MacMillan 2015).

The importance of case studies research to help sustainable place-making

Literature on community sustainable place-making emphasises the importance of research which provides rich qualitative descriptions on the role of place and local actors to give life to projects and send messages on how they can be developed and supported in the future (Khagram et al 2010, McClean and Boren 2015, Franklin and Marsden 2015). Franklin and Marsden (2015: 944) argue that: 'Case study examples provide valuable insights and roadmaps into the ways in which individual principles of sustainable living can and are being incorporated into everyday practices of production and consumption on the ground'. The importance of case studies in exploring UA and community gardening is also described by Tornaghi (2014: 14) in the following terms:

‘narrowly focused and contextualised case studies would provide a much needed critical analysis in a field that is prone to be exploited as a tool for the regeneration of capital, as a new spatial fix or just as another opportunity for urban enclosure. At the same time, case-study-based research can also highlight examples where UA counteracts specific ‘mechanisms of neoliberal localisation’.

From a climate change science perspective, Khagram et al (2010) also describe the benefits of case study research to understand human actions as scientists have realised that human

actions and ecological sustainability cannot be separated. Case studies with open approaches are also particularly important to allow local knowledge to provide alternatives to received wisdoms reinforced through policy such as more top-down and technocratic solutions to climate change (Long 1992, Twyman et al 1999, Iverot and Brandt 2012).

Cousin (2005) also describes the benefits of comparative case studies. There are a very large number of interesting sustainable place-making initiatives including UA and community energy projects both in the UK and abroad. Comparative case studies could include those cities with similar geographic characteristics as Hull as a post-industrial maritime city with deprived neighbourhoods, both in the UK and internationally. For example, Gothenburg is a similar-sized industrial port city and is reported to have a number of successful sustainable development initiatives (Brown and Lishman 2010). Sustainability-focused projects in declining US cities have a strong focus on tackling deprivation and working towards social sustainability (Walker 2015) although there is a stronger focus on racial equality than could be relevant to the Hull context at this stage. Closer to the UK context, the Big Lottery Fund (BLF) also supported another 11 Communities Living Sustainably (CLS) projects across England. CLS projects were being developed in a range of deprived areas including post-industrial maritime cities such as Middlesbrough, Sunderland and Newcastle.

Focusing on the GP project as a single case study

There were also clear advantages of fully focusing on a single case study, particularly as the project was very active in a number of areas. The main advantage was developing an in-depth understanding of the project and its challenges. The project was also attempting to implement six different sustainable place-making activities, which would provide comparisons within the project. I was constantly involved in the project for nearly 2.5 years and continue to stay in touch with staff and volunteers on how their work is developing. From 2013 to mid-2016 I visited the project approximately twice a week, attending meetings, joining project activities and spending time at the community farm. I also joined in some social activities with staff and volunteers. During this time I conducted approximately 160 interviews and analysed a wide range of data. I also produced a range of M&E reports for individual activities and for the overall project. During the production

of each report, I received ongoing feedback from staff, although some staff and stakeholders were more engaged than others and this also influenced the research.

It was not possible to conduct research into comparable external case studies within the parameters of my M&E role with the GP project. Firstly, I was restricted by the demands by the GP project for ongoing M&E, and together with the amount of research data produced, meant international comparisons would not be possible. Secondly, it was very difficult to get detailed constructive and reflexive M&E information from other CLS projects. I used some comparative information in my M&E role including discussing the challenges faced by other CLS projects obtained through informal discussions with CLS stakeholders including staff and researchers. For example, all CLS projects found it difficult to successfully support eco-enterprises. However, many CLS project staff were not keen to formally share real challenges of a funded project, while wanting to present a positive image of their project in case of future funding opportunities. If shared, any more critical ongoing M&E information produced was mostly confidential. In addition, although a number of projects engaged universities and PhD students, as projects were only completing from 2016 onwards there was no peer reviewed research material on these projects until April 2017 when St Clair et al (2017) published a really interesting article on the long term sustainability of a CLS urban agriculture project including critical analysis on the approaches of the implementing CSO. An analysis of how a lack of constructive information from other CLS projects affected the research is discussed in section 6.5 of the chapter.

6.2) Details of the field work

I began my research in February 2014, approximately one year after the GP project had started. The first three months were spent familiarising myself with the project and conducting pilot work to identify themes and also potential issues. As the pilot stage progressed, institutional ethics approval was obtained from the University of Hull: Department of Geography Board of Ethics, with the field work considered relatively low risk, in terms of the subject areas of community gardening and community energy, main target groups (adults over 18) and the security risks of conducting field work during the day in project sites around Hull. I also obtained Disclosure Barring Service (DBS) clearance

through the project, which was a standard procedure for all staff and volunteers as part of the project's health and safety requirements.

Over the course of the research, I used a mixed methods approach of qualitative and quantitative research and in line with a grounded theory approach continuously developed data collection techniques depending on the information produced by the project, the needs of the project and the research themes that emerged (Mayoux 2006, O'Reilly 2009, Creamer 2015). One of the first requirements from the project was to statistically analyse the results from the waste recycling survey. In addition, the project was trying to work with a range of participants and it would be important to understand project impacts from the perspective of participants, and the project also wanted to capture learning from project staff.

A timeline of the research is provided in Table 6.1 overleaf and the chapter goes on to describe how I conducted my research.

Research questions and sources of data

A table of sub-questions and sources of both qualitative and quantitative information was produced to guide the fieldwork in line with the research aims and objectives and consultation with the GP project. Table 6.2 identifies the research questions and sources of data. These questions were flexible and provided a template for more detailed question sheets for different types of respondents such as: participants in community energy activities or UA activities; staff with different roles and responsibilities from the implementing partners; and wider stakeholders relating to CLS projects or local government. Appendix 1 contains examples of the questions used to different stakeholders and a schedule of interviews (recorded and transcribed). For some of the more detailed case study research, such as the Family Growing Project (FGP) and the Hull Harvest Festival, I developed question sheets with input from GP staff and volunteers.

Table 6.1) Research timeline

Black blocks indicate when work was carried out, grey blocks indicate where there was some preparation work. The grey blocks in February and March for Energy Interviews indicate an unsuccessful field work attempt.

	2014												2015												2016											
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Familiarisation & Pilot	█	█	█																																	
Ethics approval			█																																	
DBS application and clearance			█	█																																
Survey & Database				█	█	█	█	█	█	█	█							█							█	█										
UA interviews:																																				
<i>CG Volunteer interviews</i>							█	█					█	█	█	█	█	█	█	█	█	█	█			█	█							█		
<i>Family Growing Project</i>									█					█							█	█	█													
<i>Refugees</i>																█	█	█	█	█	█	█	█													
<i>Feastival</i>																					█	█	█													
<i>Other (Events - e.g. Seed Swap)</i>													█	█		█					█	█	█													
Energy Interviews													█	█							█	█	█		█	█										
GP partners	█			█												█			█	█	█	█	█													
GP staff	█	█	█	█	█	█	█	█	█	█	█	█	█	█			█	█	█	█	█	█	█	█			█							█	█	
GP learning partnership:																																				
<i>Workshops</i>									█													█												█		
<i>Interviews</i>																						█	█													
<i>Information exchange</i>					█	█			█							█	█	█	█	█	█	█	█												█	
Hull stakeholders					█	█									█	█	█	█	█	█	█	█	█												█	
CEDP																						█	█													
M&E reporting										█	█											█	█													
<i>Activity reports (UA, CE, Waste)</i>										█	█		█	█						█	█	█	█		█	█										
<i>Periodic Project reports</i>													█	█	█	█	█	█	█	█	█	█	█													
Upgrade (supervision)													█	█	█	█	█	█	█	█	█	█	█													
Academic conferences																												█		█	█					

Table 6.2) Research questions and field work tools.

Research questions	Open sub questions	Field work
<p>1) What are the impacts of the Green Prosperity project? (Economic, environment, social).</p>	<ul style="list-style-type: none"> • Why have you joined the project? • What have you done? Why? (<i>e.g. why become involved as a volunteer?</i>) • What has worked well? • How have you benefitted? Any unexpected benefits? • <i>Prompt - Have you got any benefits for health and well-being? Skills, confidence and resilience? Financially e.g. helped fuel poverty? Do you or your family use any food that is grown? What do you do with food that is grown?</i> • Any difficulties in being involved in projects? Will you try and carry on? • Is there anything from the project that could be improved? • Do you think there is a connection between what you have done and environmental sustainability? • Have any of your family or friends been interested to get involved? 	<ol style="list-style-type: none"> 1) Background reading, analysis of socio-demographic information, comparisons 2) Semi-structured interviews and focus groups with GP staff, partners and volunteers, project beneficiaries 3) Observational and documents analysis. 4) Quantitative analysis <ul style="list-style-type: none"> • People engaged with the project • project outcomes where possible, including energy usage • household survey analysis 5) Individual case studies to explore involvement and benefits
<p>2) Explore project governance: internal governance and external influences</p>	<p>Project governance and approaches to continued engagement:</p> <ul style="list-style-type: none"> • What are the main aims of the GP project? • What are strengths and weaknesses of the GP project and different activities? • What was the most successful activity and why? • Who did the project work with? • How did different activities try to engage marginalised groups (methods used)? • What are the barriers to engagement? Do people need support to be involved in activities? Are certain groups harder to reach 	<p>As above plus</p> <ol style="list-style-type: none"> 6) Semi-structured interviews with wider stakeholders involved in the project (including CLS project intermediaries) 7) Observation of wider stakeholder workshops

	<p>than others?</p> <ul style="list-style-type: none"> • What has been learned from different projects? Did sharing of learning take place? • Will BLF continue to support any CLS project activities? 	
<p>3) Explore the sustainability (long term viability and diffusion) of the Green Prosperity project activities.</p>	<ul style="list-style-type: none"> • Which parts of the project should be sustained? What has been sustainable? What hasn't? Any unexpected results? • What support do you need/ get to be sustainable? What are the main challenges? • What funding is available? • How is sustainability supported by national or local government policy? • Do you think the project should be built on? How? 	<p>As above plus 8) Continued contact with project to check sustainability.</p>

Field work conducted

I interviewed a wide range of project staff, participants, volunteers and wider stakeholders conducting approximately 160 interviews and two focus groups. Table 6.3 summarises the overall number of interviews by different categories of respondent (e.g. staff, volunteers, participants, local stakeholders, wider stakeholders). Table 6.4 provides a more detailed breakdown including respondents by type of activity (e.g. UA and community energy activities).

The main focus of research was on 1) UA including volunteering and 2) community energy work, because of high levels of participation and the opportunity to learn from active project activities. I also interviewed staff involved with the other GP activities, but was unable to interview any participants. Follow-up interviews were conducted with 23 respondents at different stages of the project. Some of these interviews were kept short to follow-up on a particular issue or activity. I recorded 116 interviews, I did not record phone interviews and or pilot interviews where I was familiarising myself with the project, or some catch-up meetings or discussions with project staff and participants.

The ethics requirements around obtaining parental consent became a significant barrier to interviewing children who were involved in the project. The project did work with a small number of children, including through school-based activities and I developed a consent form to be sent home for parents to sign before any interview. However, I did not receive any consent forms back from parents, and feedback for the evaluation was obtained using homework sheets in one school and interviews with parents of three children who had attended activities.

I attended approximately 70 events, training courses, meetings and workshops - these are detailed in Table 6.5. For some of the activities, such as training courses, I had a specific M&E role and conducted post-activity evaluations, whereas for others I acted more as an observer feeding back more general information such as monitoring the number of attendees and trying to see if people would be interested in other project activities. I participated in a range of internal GP partnership, organisational and activity-focused meetings. I also participated in wider CLS stakeholder meetings with the Big Lottery Fund, New Economics Foundation (NEF) and Groundwork, including a final learning and celebration event, a workshop focusing on monitoring and evaluation planning, and a community energy workshop.

I produced four periodic (6-monthly, annual and final) M&E reports during and at the end of the GP project. As part of finalising these reports I obtained feedback from GP project staff. I also produced four separate case study evaluation reports on the community energy work, the Family Growing Project (FGP), Hull Harvest Festival and a food growing course working with refugees. The Festival evaluation slightly blurred the research and took me outside my main focus on M&E for the GP project. The Festival was an external exercise to which Green Prosperity contributed a wide range of staff, volunteer and other resources. I initially agreed to help evaluate the Festival as part of a team, with my role focused on capturing learning from GP staff and volunteers involved. However, I became the lead evaluator as the original lead obtained paid employment and was no longer available.

The tables below provide an estimate of the number of interviews broken down by the different stakeholder categories. However, the picture is complicated, as there was considerable overlap between different categories of respondents, such that board members, staff, volunteers and participants had different roles at different stages. For example, one volunteer at the community garden became a Probe member of staff. Two participants in the smaller FGP became regular volunteers at the community garden. In terms of categories, local stakeholders include staff from organisations based in Hull that the GP project collaborated with, such as Hull City Council (HCC). Wider stakeholders include staff and researchers based outside Hull connected to the GP project through Communities Living Sustainably. A schedule of recorded face to face interviews is provided in Appendix 1.

Table 6.3) Summary of interviews and focus groups

Interviews/ focus groups conducted.	163
Individuals (participants, volunteers, staff, stakeholders) interviewed individually or in focus groups.	125
Individual project participants	72 different individuals including 3 refugee dads in focus group. (Does not include Festival electronic survey to participants).

Volunteers	31 (12 interviewed more than once) 50 recorded interviews conducted. This includes group interviews or group interviews where a staff member and or care worker sat in with volunteers with learning difficulties. (Care worker not included as volunteers or beneficiaries). This does not include 2 externally facilitated focus groups which I observed.
GP project staff	16 individuals in 21 interviews
Local stakeholders (including Hull City Council employees, representatives from local civil society organisations including Food4Hull).	15 individuals in 16 interviews.
Wider CLS stakeholders	4 stakeholders in 4 recorded interviews,
Individuals interviewed more than once	23 (12 volunteers, 5 families from FGP, 5 staff and one local stakeholder)
Total recorded interviews and focus groups	110. Interviews not recorded included early interviews, fast interviews conducted by phone (e.g. with energy monitor recipients and UA participants), plus one staff interview where I accidentally didn't turn on recorder.

Table 6.4 below identifies the different stakeholders interviewed by the different activities. Again there is some complication and overlap. For example, for FGP I asked some of the volunteers and staff about their involvement as part of a wider set of questions on their involvement in a range of activities, whereas for others I conducted interviews focused on the FGP. In addition, 12 of the UA participants also had an energy monitor and in some cases I combined questions in one interview whereas in other cases, I conducted separate interviews. Table 6.5 identifies how many different meetings I attended through the project and after the project. I attended 19 formal meetings, approximately 100 informal meetings, 15 events (with volunteers, stakeholders and beneficiaries), 11 wider stakeholder events and 2 CLS events.

Table 6.4) Interviews and focus groups conducted

Activity	Participants	Volunteers	Local Stakeholder Organisations	EMS staff	Probe	Freedom Centre	Wider project stakeholders
General/ across projects			2 x Eden Project 1 x Thanet School 2 x Food4Hull	3 x COR	1 x Gardener 1 x UA manager 1 x Activity Coordinator 1 x Volunteer Coordinator		
Volunteers		50 interviews. 31 individual volunteers. 12 interviewed 2 x or more. <i>Plus 2 staff supervision and 2 external focus groups</i>					
FGP	19 interviews 11 individuals All 10 families. During: 7 not 3 After: 8 plus 1	<i>4+1 mentors.</i> <i>Plus garden team (3)</i>					

Activity	Participants	Volunteers	Local Stakeholder Organisations	EMS staff	Probe	Freedom Centre	Wider project stakeholders
Smaller FGP	2 families (2 other families became vols).	(2 volunteers)			2 x Activity manager		
Hull Harvest Festival	Survey monkey 17 Respondents – not included	10	1 x St Marys (plus 15 by other evaluators)				
Refugee dads:	4 (1 x focus group 1 x interview)	Plus 2 volunteers	1x HCC Adult Education 1x RC				
Community consultations	10 (plus 21 by staff)						
Community energy	40 interviews. 29 phone or email. 13 recorded interviews, 12 were UA volunteers or participants)		1 x Warm Zone 1 x HCC 1 x P&F 1 x Affinity Sutton.	2 x EM			2 x CLS Post-doctorate researchers
Green-Care						2 x GCM	

Activity	Participants	Volunteers	Local Stakeholder Organisations	EMS staff	Probe	Freedom Centre	Wider project stakeholders
Enterprise Development			1 x Princes Trust		EDO x 1		
General GP			1 x HCC Anti-Poverty officer 1 x HCC Climate Change Officer 1 x Urban Planning Officer	Executive Director x2 Admin Manager x 1 Finance officer x 1 Board of Directors x 1	Management Team x 1	1 x FCM	1 x NEF 1 x Project Enabler from Business Services Leeds.
Total							
Interviews	72 <i>not including 21 by staff</i>	50	16	10	8	3	4
Individuals	67 (minus 8)	31	15	6	8	2	4
Recorded	33	50	11	9	6	3	4

Table 6.5) Project meetings and workshops attended

Activity/ type	Partnership meetings	Staff meetings	Project Events	CLS workshops	External
Urban Agriculture		4 x Monday meetings	1 x Seed swap 1 x open day,		1 x visit to CSO UA initiative.
Refugee dads:			2 x course days 1 x MBD		
FGP		2 x mentor meetings 1 x First Aid			
Hull Harvest Festival					1 x post festival evaluation 1 x Feedback meeting
Volunteers		24 volunteer days attended (including 6 volunteer farm events such as harvest festival)	1 x BBQ 2 x volunteer award ceremony 2 x volunteer Xmas dinners 1 x Social Return On Investment meeting.		1 x Huddersfield University volunteer feedback meeting. 1 x Down to Earth 1 x tour to Rainbow Garden 1 x visit to Goole.
Community energy		2 specific meetings with EM staff		1 with Energy Saving Trust	2 x Affordable warmth

Activity/ type	Partnership meetings	Staff meetings	Project Events	CLS workshops	Stakeholders
General GP	6 (1 per quarter then every 6 months)	Approximately 100 ongoing catch up meetings with different staff.	1 x Craven Lea 3 x Open Bus	1 (M&E) 1 (celebrations and learning event)	2 x Green-Share events
Future/ diff projects	2 x Community Economic Development Planning				3 x Affordable food seminars and workshops.
Total	10 formal meetings with staff and stakeholders.	9 formal meetings with more than one staff, 100 informal catch up meetings 24 volunteer days (with staff)	15 events, many involving volunteers	3 with CLS stakeholders.	11 external events.

Organisational information

The research findings were also supported by document analysis and observational data. I worked from the lead project office approximately two days per week and regularly attending meetings and activities. I attended a range of project meetings at both leadership and operational levels; project activities delivered by partners or individual organisations; local meetings and events organised by wider stakeholders; and nationally focused meetings and events including those organised by the BLF and project intermediaries. I used a field diary to reflect on observations, informal and formal discussions, and my own positionality as well as any ethical dilemmas (Twyman et al 1999, Adams et al 2005, Clarke 2009). I recorded my observations on the success of project activities, how staff and participants interacted with each other and between themselves, and challenges in project management. In addition, I recorded moments of enjoyment and appreciation, including attending the awards ceremonies for volunteers. There were many areas where observations identified important information which were not immediately obvious from interviews or project documents (Ali and Cotton 2006, Lewis et al 2006). For example, I observed a strong adherence to health and safety procedures and a theme emerged of volunteers and participants valuing the feeling of being safe. The extended nature of the study also provided an opportunity to develop insights into changes over time. For instance, post project sustainability became a key issue towards the end of 2015 and I recorded a large number of observations on the frustrations felt by staff and volunteers due to a lack of security and communication.

Sampling

Observation of project activities was also a strong influence on sampling. I aimed to interview as many people connected to the project as I could in line with a selective sampling technique used in ethnographies, case studies and grounded theory (Baker et al 1992, Cousins 2005). I interviewed all staff, a number of wider stakeholders as suggested by the project, and also residents who participated in project activities. It was easier to interview people who I met through project activities or were recommended to me by staff, rather than interview people who I hadn't met or who hadn't been involved in activities for a long time (as illustrated with phone interviews).

In terms of project beneficiaries, it also became clear that participants could quickly drop out of project activities due to a range of personal reasons. I initially focused on participants from the target wards (Longhill, Southcoates East and Marfleet) and more vulnerable groups. However, the project adopted an increasingly inclusive approach to working with people from different parts of Hull, and I also realised that people I assumed were not marginalised may have more hidden vulnerabilities.

Relying on the project to provide access to beneficiaries can raise concerns of whether the project acted as a gatekeeper, directing the research to participants more positive outcomes (Burgess 1984, Mohan 2002, Crewe 2012). However, by interviewing as many people involved with the project as possible, I felt I was able to identify both positive and negative project outcomes. There were also many advantages of GP facilitating access, including ensuring access to hard-to-reach participants. In addition, relevant background information was discussed with GP staff and other stakeholders to understand and triangulate findings (Mohan 2002, Dickie 2003). Combining research with GP activities also allowed for observations on the relationship between GP and target groups, how priorities were identified and discussed, and who participated and did not participate in activities (Sultana 2007).

I attempted to interview people who dropped out of the project in order to provide insights into negative outcomes (Goodman 1961). I interviewed four people who had wanted to be involved in a UA activity, but who were not engaged by the project due to internal governance issues. I also interviewed two people who had volunteered in UA activities at the beginning of the project but who had disengaged due to confusion over eligibility as they did not live within the two target wards. I also conducted phone interviews with people involved in community energy activities and UA activities but who no longer considered themselves part of the project. Contacting people from the databases who had not been involved in an activity for a number of months was extremely difficult due to a range of issues including changing telephone numbers or not wanting to give up time to answer questions. A low number of interviews with people who dropped out of the project could be identified as a weakness of the research in terms of analysing why the project found it difficult to engage with certain target groups, with the GP project finding it particularly difficult to engage young people aged 18 to 24. However, this could

indicate the need for additional research focusing on young people and sustainable place-making.

However, the project could be seen to act as a 'gatekeeper' in that it set research parameters: I had to respond to project needs for data and it was not possible for me to explore a finding in more detail if I needed to move on and focus on current activities. For instance, I could have focused more on the work with refugees as the interviews were a rich source of interesting data and there is a gap in the research in the UK on the benefits of involving refugees in sustainable place-making activities. However, the training course for refugees was a short activity and I could not justify the time needed to go back to the refugees.

6.3) Quantitative research: identifying priorities, participation and outcomes

Quantitative research was a key element of the fieldwork, to provide information to the project on outcomes from activities, to triangulate findings from qualitative data and to identify findings to follow up in interviews (Mertens 2007). My initial focus was analysing quantitative data collected by the project and I then worked with the project and wider stakeholders to improve data collection. Quantitative analysis began with statistical analysis of a survey of 1,000 local residents focusing on waste recycling but which also asked about interest in UA activities and volunteering. From this survey, I then developed a master database of project participants including respondents to the survey, beneficiaries from other activities (UA and community energy), and the different interactions with the project (such as different training courses attended). The database information was then used to develop findings and guide qualitative research. In addition, I also used interviews to try to develop quantitative results, such as savings from community energy measures and results from UA activities as discussed earlier. The quantitative information collected through the survey and project databases is described below.

Initially, I also wanted to focus on quantitative information to measure any impacts on reducing carbon emissions. The literature review identifies a shortage of quantitative evidence in particular to make a strong case for the environmental benefit of sustainable place-making activities, with Mason and Montalto's (2015) quantitative research into tree

planting in New York an isolated example. However, I found it extremely difficult to find a way to collect credible quantitative information on reductions in carbon emissions. No baseline data was collected and householders were very reticent to provide detailed information from utility bills (Hargreaves et al 2010), although householders did provide estimated savings information. In addition, I was not able to work with scientific researchers which might have helped develop tools for capturing credible information on reductions in carbon emissions (Khagram et al 2010).

1) Waste recycling survey to 1,000 residents

In 2013, the project conducted a survey to collect information on environmental practices focusing in detail on waste recycling, but also asked questions about interest in food growing and volunteering. The survey had a target response of 1,000 and there was a focus on generating responses from the target wards and surrounding council wards of east Hull, although any responses were accepted. No sampling strategies were used and therefore the results were not generalisable across the population, but the project aimed to use the results for prioritising and developing appropriate activities, such as highlighting geographical areas with low rates of recycling that could be targeted for further work.

I focused on three types of analysis: 1) Analysis in Excel to describe overall results; 2) Significance testing of bivariate analysis of statistical relationships using SPSS; and 3) Multi-level modelling (using MlwiN). I used the following questions for the analysis: *What are the levels of interest in recycling, growing your own food, and volunteering? Is interest in environmentally focused activities influenced by demographic variables of respondents including location (e.g. Southcoates East and Longhill), age, gender, ethnicity, property type and household type?*

A full set of results and tables from my analysis is contained in Appendix 1.

The first step was to try and improve the accuracy of the initial data, particularly focusing on gender of the respondent, accuracy of addresses, and identification of electoral ward and enter these on an Excel spreadsheet where overall levels of recycling and interest in grow your own food and volunteering could be analysed.

I then performed bivariate analysis in SPSS and focused on cross tabulations, include chi-square tests, to analyse the relationships between demographic variables (e.g. location, age, gender, ethnicity and property type) to attitudes and practices of recycling, growing

your own food and volunteering. Results were analysed in SPSS to show highly significant ($p < .011$) and significant relationship ($p < .050$) between variables.

After the bivariate analysis I then focused multilevel modelling. Multi-level modelling builds on bivariate analysis by allowing identification of whether multiple variables (such as gender, age and household type) and hierarchies, including geography, explain variations in the outcome or dependent variables (recycling, growing your own food or volunteering), and identify the association or significance between that independent variable and the dependent variable. Multi-level modelling has been used to analyse relationships between outcomes and variables in a range of social science studies and some studies have brought in spatial comparisons highlighting the importance of location as a potential hierarchical variable (Wiggins et al 1997, Magadi and Desta 2011, Ballas and Tranmer 2012). I analysed clustering by postcode, which could be important as postcodes are focused on a specific location and can contain similar types of housing types. I used postcode sectors due to the number of responses. Postcode sectors are one level higher than units e.g. Sector - HU9 7 compared to Unit - HU9 7JG, with Ecob (1999) using postcode sectors as a cluster in multi-level modelling analysis.

I used multi-level modelling to analysis of both the odds of an event and the significance of the explanatory variables. I focused on logistic regression as the questions asked in the survey produced a range of categorical data for both response variables (dichotomous) and explanatory variables. Odds (exponent of B) were calculated in Excel. I used a value for Z of 1.96 to identify significance at the 5% level of significance. I used a reference category of a potential target group for the GP project (woman, from Southcoates East, under 40, with family, living in terraced house, white British, and no longstanding illness). I then ran a two-level random intercepts logistic regression model in MlwiN to further analyse the impact of postcode sectors as clusters.

Limitations

The GP project did not have significant resources to run the survey and there were important limitations which affected the results. The sample size is relatively small at 1,000 and the sample is not representative of the local area. The project aimed for 1,000 responses, with as much coverage of Southcoates East and Longhill wards as possible. The project did not target sampling to different sections of the population based on population

characteristics. Therefore conclusions cannot be drawn for the general population (Simon 1996). In addition, the survey questionnaire did not ask about potentially important causal factors including educational attainment or income levels.

Despite issues with how the survey was conducted, the overall results were useful in identifying rates of recycling and the influence of key variables, and the findings were used by the project to plan activities and helped develop research findings. The results of the survey analysis are discussed in chapter 8.

2) Databases of project participants

I conducted quantitative analysis from project databases using Excel and produced information from GIS mapping in ArcMap. I used the survey as the starting point for a master database which I then used to collect information for residents participating in any of the activities, including community energy, UA and volunteering. This worked well, as both the UA and community energy activities also used the survey contact details as a resource to contact residents, with the community energy activity in particular generating demand through contacting survey respondents. By the end of the project, the database contained information on 1,760 participants. I also used this as a platform to improve information being collected by the project on participants, including ward, age and gender. A key issue highlighted by these checks was that the project was not routinely collecting information on which council wards residents were living in, and therefore not analysing participation rates among people from the two target wards. Converting address information into postcode and ward information was particularly time-consuming. For community energy, I also worked with the project to add information on vulnerability indicators, including unemployment and disability, which was being collected in an initial questionnaire but then not analysed. I also worked with staff to collect information on savings from different interventions including using the energy monitor, tariff changes and referrals for warm home discount (WHD).

This analysis was useful for both M&E and research in a range of ways. Analysis of wards and postcodes to show where participants came from was particularly useful in identifying participation from the target wards. For example, early findings indicated that the project had a large number volunteer hours committed by volunteers from outside the target wards. I was then able to compare participation rates between years to identify if

activities became more successful in targeting local residents. This information was fed-back to the project and used to ask follow-up questions. Analysis at an individual level was useful to ascertain whether people had participated in different activities, such as both UA and community energy, and whether they were continuing to participate or had dropped out. The database was also a resource for sampling respondents to contact about the impacts of particular activities such as community energy and UA, although it was not always easy to contact people from the database. I also wanted to collect and build in information on the work of other project activities: Green-Care, eco-enterprises and the eco-house, but these activities did not outreach into the community. Unfortunately these activities also did not try to make use of the existing project data on the database, such as contact information.

Ethical issues also arose from the use of databases around anonymity and data protection. The project was given access to HCC information on the energy efficiency of individual households including energy efficiency ratings, energy costs and fossil fuel emissions for residents of Longhill. The project was also promised the same information for Southcoates East and was hoping to use this information to target households with poor energy efficiency, and also develop a baseline to evaluate any improvements on reducing energy costs and CO₂ emissions. However, because householders had not been asked for consent by Warm Zone to share this information with other organisations before the information was collected, after initially using information from Longhill, we were not able to use further Warm Zone information.

Figures 5.1 and 5.2 show sample screenshots of the data collected. Personal information has been anonymised. The master database contained overall information, and there were sub level databases for each activity, with a screenshot from the community energy database also included here as an example.

Figure 6.1) Excerpt: GP project master database detailing activities

1	SURNAME	FIRST N. M/F	AGE	ADDRESS	POST CODE	WARD	TEL	EMAIL	Survey	em	WZ	Vol	GYO par	Sessions	FGP	Eden Prc	EHB	Food 360	Seed Swaj	Farm oper	Comm Cor	Comme	
1011		f	20-29		HU8 9PD	Longhill			Yes	dnw	n/a												
1012		F	Adult		HU9 5UG	Southco							2013	1								Yes	
1013		M	12		HU9 5UG	Southcoates East							2013	1									
1014					HU6 8LW	Universi				Yes													
1015		f	60-69		HU9 5TR	Southco			Yes	Yes													
1016		m	20-29		HU9 3SY	Southco			Yes														
1017					HU9 5UA	Southcoa											Yes	Yes					
1018		f	40-49		HU9 3SG	Southcoa			Yes								Yes	Yes					
1019					HU9 3SN	Southco												Yes					
1020		f	20-29		HU5 3DJ	Avenue			Yes														
1021		F			HU9 4DL	LONGHIL			Yes	no data			2014	1	Yes								
1022		F	30-39		HU8 9PT	Longhill			Yes	dnw	n/a		2013	1			Yes					Yes	
1023					HU9 4JL	Marflee												Yes					
1024			65+		HU9 3LG	Ings				Yes													
1025		f	70-79		HU8 9PD	Longhill			Yes	Yes	n/a												
1026		f	40-49		HU7 4LX	Bransho			Yes	dnw													
1027		he			HU8 9PF	Longhill					D							Yes					
1028					HU7 4H													Yes					
1029					Hu9 3PL	Southco											Yes						
1030		u	50-59		HU2 8HL	Myton			Yes														
1031		m	40-49		HU9 3HT	Southco			Yes	dnw													
1032		f	Under 20		Hu9 4TL	Ings			Yes														
1033			65plus		HU13 0PY	Hessle				Yes													
1034					HU9 3SN	Southco				dnw							Yes						
1035		m	60-69		HU9 4ES	Marflee			Yes														
1036					HU4 6pt	Pickerin				wl													

Figure 6.2) Excerpt: Community energy database

1 st name	AGE	LSI/Dis	Address	Postcode	Ward	Telephone	Email	Date Installed	Payme ter?	Savings	How?	WHD	Warmz one	Tenancy	SAP band	total energy cost	Draft Proofin g	Comments	Other activi
	35-44			Hu1 1hb	Hull West			18/03/2014											
	65plus	Yes		HU1 2RD	Hull West			27/11/2014											
	65plus	Yes		HU13 0PY	Hull West			13/10/2014		£260.00	TC&WHD	WHD							
	65plus	Yes		HU5 5SB	Hull West			16/10/2014											
	65plus	Yes		HU5 5SY	Hull West			15/10/2014											
	65plus	Yes		Hu1 1hb	Hull West			29/01/2014											
	65plus	Yes		HU3 2EG	Hull West			03/12/2014											
	40-49	Yes		HU1 1HB	Hull West			19/02/2014											Yes
	65plus			HU13 0PY	Hull West			13/10/2014											
				HU13 0PY	Hull West			13/10/2014		£340.00	TC	Ref							Yes
	60-69			HU1 1HB	Hull West			18/02/2014											
				HU4 6HF	West and Hessle			14/10/2015											
				HU1 2RD	West and Hessle			16/12/2015											
				HU4 6NF	West and Hessle			15/10/2015				Ref							
		35		HU9 4TU	Ings			12/11/2015											
	35-44	Yes		HU8 9PB	Longhill			16/01/2015					Yes	LA	C	£958	Yes		
	45-54	No		HU8 9NX	Longhill			29/01/2015					Yes	LA	C	£1,159			
	25-34	No		HU8 9TD	Longhill			29/05/2015					Yes	LA	D	£1,248			
	45-54			Hu9 4dn	Longhill			28/05/2014					Yes	LA	D	£889			
	50-59	Yes		HU8 9NP	Longhill			18/11/2014					Yes	LA	D	£1,520			Yes
	65+	Yes		ad	Longhill			30/03/2015		£185.00	EM & WHD	WHD	Yes	OO	D	£903			
	65plus	Yes		Hu11 4df	Longhill			24/07/2014					Yes	OO	D	£974			

6.4) Qualitative research: trying to bring out the voices of staff and participants

I focused on qualitative research and semi-structured interviews to bring out stories and perspectives from staff and participants, and to explore issues over time (Long 1992, Mayoux 2006, O'Reilly 2009). I tailored the guiding list of questions (identified in Table 6.2 and Appendix 1) for different interviewees. I adapted my questions as new themes emerged, leaving space for open responses and discussion of issues raised by respondents (Baker et al 1992, O'Reilly 2009). Due to the extended nature of the research, I was able to take time to interview people, both staff and participants, over the two-year course of the project and after the project had finished.

The two year plus length of the research was also critical in developing trust and rapport with both staff and participants who were initially wary of me to varying degrees and could both be reticent in answering questions. For instance, project staff may have viewed me as representing project management and that information could be used in performance management. Project participants could think it is better to give positive information to maintain good relationships with project staff, or not to divulge information about personal challenges if it meant the project might exclude them. This may have been reinforced by the lack of staff and beneficiary participation in developing the research aims (Twyman et al 1999, Willis 2006, Sultana 2007).

Project staff were the first to open up to me as I spent more time in the office and had general conversations not only focused on the research. Although openness of responses increased, as relationships became blurred into friendships there were also differences between 'on the record' and 'off the record' comments. Developing friendships meant people sometimes told me things in confidence, with staff in particular voicing some frustration towards project managers and the BLF as their contracts were finishing and there was very little communication on what would happen next. I reflect on how relationships affected my research later in section 6.4 of this chapter, but at a practical level I needed to think through when to record discussions, and adopted an approach that I would record arranged interviews, but not record more casual conversations (Sommer and Sommer 1992). I also needed to think through how to report important issues back to the project in ways that were constructive and not attributable to individuals.

Listening to the stories and perspectives from participants

Initially, research participants were sometimes suspicious of why I was asking questions. For example, when I asked people receiving out-of-work benefits how easy it was to volunteer, some participants were worried that there could be serious repercussions given a climate of punitive benefit sanctions (Crisp 2015). More than one respondent half-jokingly asked if I was from social services. In addition, in 2014 and 2015, Channel 5 was planning to film a programme called *'Benefits Britain: Life on the Dole'* around Preston Road, in Southcoates East, focusing on unemployed people living on state benefits. An earlier Channel 4 programme *'Benefits Street'* had portrayed a very poor image of an area of Birmingham (Hull Daily Mail 2014). The negative publicity and suspicion around the proposed filming also raised suspicions of who I was and why I was asking questions. My outsider status: not from Hull and researching for a Ph.D. could have contributed to people's suspicions (Apentik and Parpart 2006, Sultana 2007). People could also have been reticent due to concerns about being stigmatised as being in poverty or from a deprived area and also, given the nature of the research, about being judged as being environmentally unfriendly (Hargreaves et al 2013, Reid et al 2015).

However, the long research time frame meant I didn't need to ask questions as soon as I had met someone, I could keep questions in reserve until people felt more open. Sometimes I conducted very short interviews just to ask about views on recent activities rather than go into in-depth questions straightaway. Over time, I also realised that the interview location was very important and found I got more relaxed and in-depth interviews when conducting interviews away from offices. It was particularly beneficial to conduct interviews in the community garden during an activity such as digging or weeding together, or sitting in a quiet space on the edge of the garden away from other participants (Rabiee 2004, Elwood and Martin 2010). A further consideration was whether to record interviews. All participants were comfortable with recording. However, my research diary identifies a large number of times that people would open up about more sensitive information after the Dictaphone was turned off, particularly at the time of the end of the project when people wanted to discuss the future of activities and project staffing.

Through continued interviews with participants, I was able to consider different impacts of the project from their perspective. A range of academics highlight the importance of individual case studies to show the daily challenges of poverty, explore the impacts of

projects and investigate individual agency (Long 1992, Mayoux 2006, Aryeetey et al 2013). As I developed trust and rapport, project participants began to discuss how the project was helping them in many ways I hadn't initially considered, with participants being particularly open about how it helped them deal with serious health and wellbeing issues. Linked to the aims of the project and the research, I also asked questions whether people were motivated by environmental issues and if they thought there was a connection between what their own actions and wider environmental sustainability including tackling climate change (White and Stirling 2013). Some of the GP staff were not sure whether this question would get good responses with a staff member stating that 'we don't want to put people off working with us'. However, again participants voiced a wide range of responses and connections I had not considered.

As I began conducting more interviews with volunteers, a range of new ethical issues emerged requiring day-to-day management, with ongoing support from the GP project (Shea 2000, Sultana 2007). In arranging interviews with some participants with mental health issues or learning difficulties, I initially interviewed all participants in one to one interviews without a staff member present, but realised that some participants were very guarded if I had not built up a relationship with them already. When I arranged follow-up interviews it became clear that the presence of a trusted staff member was really welcomed by the participants and created a more natural setting which helped the flow of discussions (van Donge 2006). Sometimes volunteers were very open about mental health challenges and wanted to voice strongly how the project had helped them. I wanted to capture such benefits but I was also conscious of not being too challenging in interviews, and at times I needed to consider the emergence of potentially sensitive subjects. Sometimes I had to close down questions when I felt volunteers were providing more personal information than I thought my research required, such as histories of mental health challenges and consequences.

I also conducted two focus groups or group interviews with refugees on a UA training course involving staff and beneficiaries to collect data on specific activities, responding to an opportunity to ask questions of the refugees when they were attending a drop-in centre and a college course and when translators were present, realising I might not get access to individuals again. The Refugee Council (RC) staff member was present and therefore could have influenced the discussion and findings (Twyman et al 1999, Williams

2016). However, I also felt including the RC staff member in the discussion with refugees could influence the shaping of any future activities.

Volunteers being open with information and staff being present in interviews brought in some ethical dilemmas around confidentiality and power relations (William 2016). However, I felt in some cases being open about challenges and how the project helped them gave participants a voice and was also really useful as it meant staff could have a greater understanding of some of the issues that participants were facing in their lives and how the project was or could help them. In addition, I also made it clear that participants could choose whether a staff member was present, and reminded people that they did not have to answer questions as part of obtaining consent for interviews and again when I asked more personal or challenging questions.

Maintaining confidentiality became a dilemma. I had designed my research to maintain confidentiality, but it soon became clear that many participants wanted to put their names to their views or discuss them openly. As stated earlier, sometimes participants also wanted staff to be involved in interviews. In discussions with the project, it was agreed pseudonyms would be used for participants (Williams 2016). In addition, I would not include any of the more sensitive and personal quotations, such as descriptions of mental health issues, in any publicly available material (such as presentations in the local community) so respondents could not be identified by other volunteers or members of the community. I also had to manage the use of quotations. Some of the volunteers were eloquent in describing their mental health challenges and the benefits of the project, whereas other volunteers discussed powerful stories and outcomes, but the quotes were less presentable. I also had to consider the use of photographs, using general shots of activities rather than individual shots when I illustrated case studies.

Compromising: in-depth research versus project requirements for fast information

Sometimes I had to compromise my focus on in-depth qualitative research so I could also respond to the needs of the GP project to provide rapid feedback. There were two examples where the project needed to conduct rapid interview based research to produce quantitative results, when the project needed feedback on the outcomes of a particular activity. When evaluating the community energy activity and producing findings for the project in early 2015, I needed to contact people the project had worked with to build up information on savings. I used the project database to contact as many people as I could

by phone or email. From 475 participants, I only managed to contact 29 participants who were open to answering questions. However, in late 2015 I was able to interview another 12 participants involved with the project through UA activities. The small number of participants contacted and willing to provide information was due to a range of factors including phone numbers changing, people moving house, incomplete database information, and attempting to contact people during working hours. Some people I did get through to did not want to respond. Many did not have time due to more important priorities, such as childcare, or they were suspicious as to why I was asking questions (Twyman et al 1999, Valentine 2005, Reid et al 2015). In addition, Hargreaves et al (2013) and Reid et al (2015) identify that people vulnerable to fuel poverty can be reluctant to answer questions due to stigmatisation. I also attempted to collect additional savings information after the project completed but did not receive any responses.

In relation to UA activities, the project wanted to find out whether people had been able to grow their own food after attending project training courses, what challenges they faced and what support was required. Many of these participants were no longer involved and participants were contacted through details held on a database. In this case I worked as a team with two staff members to conduct phone interviews and again we experienced the same low response rate.

While conducting this faster research, I felt there was tension between the rapid interviews approach and my plan to conduct more in-depth research. In general I found phone interviews were much shorter and to the point, with less opportunity to build relationships and therefore generate more open answers. Only one participant from the community energy activity was open to an interview in person after the phone contact. On the positive side, as the research progressed, I realised that this would be my only point of contact with many of the participants as they were not involved in the project activities on an ongoing basis, and I would have no further opportunity to ask questions. In addition, I did build up a range of valuable M&E information which shaped the development of future activities, but less in depth research to explore issues in detail.

There could have been other sources of tension. For example, if the project had required my research to focus on collecting information for targets, or focused on using toolkits which are increasingly being used to quantitatively assess improvements to mental health. However, the project was very supportive of the focus on detailed qualitative information and interviews with participants, with this support also influenced by the flexibility of BLF.

The focus on qualitative tools enabled the research to bring out the voices of participants and staff.

Data coding and analysis

Due to the need for continuous presentation of findings to the GP project, data was analysed on an ongoing basis during field work (Clarke 2009, O'Reilly 2009). Field information was supplemented from analysis of organisational documents and quantitative analysis (Mertens 2007). Interviews and focus groups notes and recordings were transcribed on a continuous basis. Transcriptions and field notes were then coded and analysed to identify broad themes and more detailed sub themes (Dickie 2003, Crang 2005, Matthews and Ross 2010). I adopted a flexible approach to coding to allow codes to be revised and new codes to emerge as the research progressed (Baker et al 1992).

After completing the field work and a first stage of feeding back to project stakeholders and at academic conferences, I conducted a final round of more detailed coding of transcripts to identify key themes, new themes, and when themes were discussed (Crang 2005, Matthews and Ross 2010). This included conducting a search for each key word in the transcripts using Microsoft Word and a table of themes and codes used in coding is contained below (Table 6.6). For instance, in addition to mental health issues, a number of participants also brought up challenges relating to state benefits and there was a change in emphasis from respondents from initial concerns over benefit sanctions in 2015 to concerns over benefits reassessments in 2016. Biodiversity was also brought up as an unanticipated theme both by GP project staff in terms of working with schools and attracting new funding, and by participants in terms of engaging children and also values of protecting biodiversity as a wider environmental outcome. This analysis also included identifying which stakeholders were particularly interested in certain themes. For instance, I was interested in which stakeholders discussed behaviour change as a project aim. Behaviour change was discussed by overarching CLS stakeholders including NEF and the BLF. However, only one local stakeholder discussed behaviour change unprompted revealing a potential mismatch between the expectations of wider stakeholders and people closely involved in the project.

Table 6.6) Themes and key words used in coding

Themes	Key words
<i>Gardening and different jobs</i>	<ul style="list-style-type: none"> • Garden/ allotment/ plants/ pottering/ gardening/ / digging. • Growing/ nurture/ create • Building/ woodwork/ work
<i>Harvesting and eating food</i>	<ul style="list-style-type: none"> • Cooking/ baking • eat(ing)/ fresh/ nutritious/ harvest/ pick/ fruit/ vegetables.
<i>Enjoyment</i>	<ul style="list-style-type: none"> • Love/ enjoy/ happy/ great/ fun/ relax/ passion/ like • fit/ healthy/ doing
<i>Benefits to people</i>	<ul style="list-style-type: none"> • Benefit/ help/ friends/ support/ confident(ce)/ relief(ve)
<i>Family</i>	<ul style="list-style-type: none"> • children/ kids/ play. • remember/ family/ grand (parents)/ nan/ mum/ dad/ sister/ brother
<i>Outside and nature</i>	<ul style="list-style-type: none"> • outside/ green/ nature/ park/ trees/ biodiversity/ wildlife/ birds/ bats/ hedgehogs
<i>Community and place</i>	<ul style="list-style-type: none"> • community/ social/ local/ team/ friends • place/ space/ belong • Hull/ Preston Road/ estate/ Bilton/ Longhill/ Greatfield/
<i>Sustainability and climate change</i>	<ul style="list-style-type: none"> • Green/ environment/ sustainability/ waste/ • carbon/ CO2/ climate/ global warming/ Ozone/ LA21 • Solar panels/ nuclear • Recycle(ing)/ bike/ clean/ tree planting. • Behaviour change
<i>Engagement and volunteering</i>	<ul style="list-style-type: none"> • suspicion (<i>plus insults to people in local community?</i>)/ interest (not interested)/ reticent • help/ volunteer/ engage/ relaxed/ flexible/ • vulnerable/ marginalised/ disadvantaged/ poor • retirement/ young/ unemployed/ learning disabilities • safe/ secure/ support • expenses/ lunch/ taxi/ transport

	<ul style="list-style-type: none"> • BBQ/ Pizza • Seed Swap/ Feastival/ Open Day/ Timebank • GP/ Green Prosperity/ project/ office/ freedom centre • Staff and volunteer names • Follow-up • Social media: FB/ Facebook/ Twitter • Advertise.
Poverty and state benefits	<ul style="list-style-type: none"> • (food and fuel) poverty/money/ finance/ crisis/ debt/ low income/ • Xmas/ funeral/ birthday/ holiday • Dole/ benefits/ office/ delay/ sanctions/ DWP/ unemployment/ claim/ sign on • jobs/ work/ interview/ search/ hunt • Food banks/ parcels/ homeless/ • CAB/ church/ St/ the hub/ Child Dynamix • Estate/ run down/ housing • Refugee/ marginalised/ disadvantage/ vulnerable/ old/ young
Health and wellbeing issues	<ul style="list-style-type: none"> • health/ stress/ depression/ disability/ sick/ anxiety/ ME • knees/ back/ muscle/ leg • therapeutic • care/ caring/ autism
Resilience/ self-reliance	<ul style="list-style-type: none"> • self-sufficiency/ reliance/ sustainability/ resilience
Learning/ skills and experience	<ul style="list-style-type: none"> • education/ train/ school/ college/ course/ teaching/ learning/ curriculum/ horticulture/ qualification • skills/ experience/ know/ advice • future/ generation
Politics/ political climate	<ul style="list-style-type: none"> • politic/ austerity/ hardship/ cuts • government/ Cameron/ Osborne/
Energy monitors	<ul style="list-style-type: none"> • Power/ companies/ bills/ meter/ clear/ confus(ed/ing/ion)/ Big 6/ expensive • Cold/ Warm

	<ul style="list-style-type: none"> • Switch/ leave/ light/ kettle/ standby • Monitor/ save • Use/ Easy/ not working/ batteries/ check • Warm Home Discount (WHD) • Old/ family/ kids/ husband/ wife/ partner
Hull City Council	<ul style="list-style-type: none"> • council/ planning/ permission/ strategy/ funding
GP: Partnership and governance	<ul style="list-style-type: none"> • GP/ Green Prosperity/ project/ office/ freedom centre • Staff/ <i>staff names</i> • Planning/ / meetings/ communication/ <i>other management or staff performance issues.</i> • Money/ Budget/ • Challenge/ problems/ poor/ improve/ frustrate/ bad • Monitoring/ evaluation • Lottery/ NEF/ Groundwork
Sustainability and Funding	<ul style="list-style-type: none"> • Farm/ land/ support • Sustainable/ carry on/ continue • Funding/ contract/ lottery/ lack of/ difficulties/ challenges

6.5) Reflections on the research: trying to be a distant critical friend

Researchers should be reflexive to consider their impact on the research process and findings in terms of positionality, autobiography, assumptions, relationships and power in the field (Rose 1997, Twyman et al 1999, Sultana 2007).

My positionality influenced the research in a number of ways. My autobiography and interests shaped the methodological approaches including use of semi-structured interviews and also exploring of themes relating to civil society, governance and sustainability (Goulding 1998). I have also described how I addressed some of the potential power relations between myself, staff and participants including how people were suspicious of my research and also dilemmas of involving staff in interviews with participants with learning difficulties (Williams 2016).

My positionality and the influence of the project came together in my role as evaluator. I had to try and navigate a potential conflict between being an academic researcher and my M&E role for the project (Brannick and Coghlan 2007), with the project paying for my PhD and me working closely with project staff. As the research was a collaborative investigation into a single case study, throughout this chapter I have reflected on how the GP project drove the research forward, including influencing the research objectives, providing rich data for the research and the research timetable (Cousin 2005). For example, the research developed a clear focus on UA and community energy as these projects were more active, although it was easier to engage with UA as there was more engagement of staff and participants compared to other activities.

Aiming to be a 'distant critical friend'

There is a range of research about evaluations which discusses the benefits of being a '*critical friend*' to a project and how a critical friend can provide more valuable learning than a distant expert, including through adopting a more supportive approach, developing an in-depth understanding of a project and building relationships with staff and beneficiaries (Patton 1994, Kember et al 1997, Carlson 2009). However, Tornaghi and Van Dyck (2015: 1252) suggest that distance is valuable as emotional attachment can cloud learning:

'Distance, or rather lack of distance is, what gives rise to probably the most widespread critique on pursuing scholarly work at the service of social struggles. Proximity and emotional involvement enhance the risk of developing overly positive arguments and politically instrumental conclusions at the expense of the ability to keep the required social complexity'.

During the research I tried to combine both aspects and become a '*distant critical friend*' to the GP project, to be supportive and avoid emotional attachment. A key factor in being able to adopt a supportive approach was that I was not evaluating financial governance or human resources and therefore was not directly influencing decisions on expenditure and staffing. I have previous experience of financial auditing and how this can affect the nature of evaluations from being supportive to being more adversarial.

I produced a range of findings from the ground that were used by the project to improve effectiveness. However, I found that research findings had an impact at different levels. At an activity level, decision-making was more transparent and responsive to research

findings, including the inputs of volunteers and participants. For example, the UA staff responded to feedback that training courses would be more effective if they focused on providing long-term support to fewer participants in developing the Family Growing Project (FGP). The community energy project responded to information that it needed to follow up with individuals regularly to check people were able to use the energy monitor and other advice. In addition, analysis of the waste recycling survey identified very high levels of recycling in target wards leading to prioritisation of other activities. Interviews with volunteers also helped demonstrate the broad range of health and well-being benefits from the project and this information was used to make a strong case for sustainability of volunteer activities.

However, my findings and recommendations did not influence the trajectories of the eco-enterprise, eco-house and Green-Care activities. On one hand, I found it easier to present findings on activities that were happening. In addition, my lack of technical expertise in these areas was a barrier to helping these programmes. For example, the Green-Care activity required in-depth knowledge of primary health-care (Kember et al 1999). There are also arguments that these more technical activities were also too complex for the project, which are explored in more detail in Chapter 8. In addition, I was not clear how more difficult decision-making was conducted at a senior level, such as if there were confidential discussions on the future of activities and staff, and did not input into these decisions.

Whilst I think I provided useful learning for the project in some areas, I did not avoid emotional attachment. I became more emotionally involved as the project drew to a close at the end of 2015 and the project activities including the community garden, volunteer roles and staff positions were under threat. I had developed friendships with staff and volunteers and was concerned about how the project finishing would affect them. Staff supported families with their wages and volunteers could find it difficult to stay resilient in the face of ongoing personal challenges. In addition, some staff and volunteers viewed me as a link to the management team and asked me questions about funding. This put me in a difficult position as project managers may have provided information in confidence that I couldn't pass on to other people. In this case I raised issues with project managers as part of questioning during interviews and indicated there was some confusion which should be resolved if possible. I did not want to take sides for a number of reasons but I was always conscious that my research was funded by the project, including for a year after the

project finished, and I wanted to maintain positive relationships with project managers to ensure there was no question about my PhD funding continuing after the main project funding was finished.

I also felt that my work could help obtain future funding through effectively reporting the impacts of the project. In relation to the UA activities, in particular, I wanted to demonstrate the health and well-being benefits of the project and how volunteers had given back to the community (Corcoran and Kettle 2015, Cloke et al 2016).

Emotional attachment might have affected the production of aspects of M&E reports, some of my responses in stakeholder workshops and how I conducted some interviews. For instance I became conscious that I risked being overly positive in my portrayal of the project (Tornaghi and Van Dyck 2015). In addition, I wanted to make sure that the research was seen as a whole and that people wouldn't only pick up on a negative aspect and I felt guilty if I was overly critical.

Influence of the donor on the M&E and research

As the donor, the Big Lottery Fund (BLF) had a major impact on project monitoring and evaluation (Petchey et al 2008, Kirwan et al 2013, Creamer 2015). However, I felt unsupported by BLF as I did not have any direct contact where I could discuss and work through tensions or difficulties. BLF had commissioned a range of organisations as intermediaries to collate learning from projects and the New Economic Foundations (NEF) was the GP project's main contact for sharing learning. However, NEF were focused on collecting general learning on specific themes such as behaviour change rather than more detailed M&E information on a project-by-project basis. For example, NEF did not request M&E reports. M&E reports were sent to BLF, but BLF was not directive on what M&E information should be collected and there was no dialogue on reports. This is in line with the findings of Petchey et al (2008) who describe that BLF are more focused on contract compliance requirements and have a light touch approach to M&E. Only on one occasion in relation to community energy did a member of the CLS team ask me to collect specific project information and provide guidance.

In addition, BLF did not encourage a culture of sharing constructive information between projects. Projects themselves did not want to share constructive criticism in case it threatened future funding. There was a general M&E workshop at the beginning of my involvement in the research, bringing together different M&E focused staff and

researchers, but then no follow-up. At the end of the project there was a wider stakeholder meeting to share CLS project learning but it did not focus in depth on challenges. For instance, there was no discussion of lessons from support for eco-enterprises which other interviews suggested had been difficult across projects. This reluctance to share information at an institutional level also affected my sharing of information at a research level. For example, towards the end of the project, I interviewed a post-doctoral researcher attached to another CLS project as part of a wider research group particularly interested in community energy. We took turns to interview each other and I interviewed her first. She was so positive about her CLS project that I felt that when it was my turn to answer, I should not divulge any negative information about the GP project as it didn't seem a safe place to share. She did offer to share more detailed learning at a later date but her wider research group argued that some information was too sensitive to be made available. Another researcher did share helpful critical feedback on an informal basis from their project and then published a paper in 2017, however, I was not alerted to this paper by the BLF, but was made aware by the other researcher after I had completed my M&E work with the GP project.

The lack of sharing of constructive information meant during my M&E work I was reliant on background literature to identify and compare challenges in delivering sustainable place-making activities rather than information from other projects. I felt this affected my evaluation reports in particular as I was not able to provide context from other CLS projects. In addition, it added to my dilemma of whether to produce more critical information on the GP project for external audiences.

There are two specific examples where I was very conscious of how I presented information on the project to wider stakeholders. The first was in a CLS workshop looking at community energy which I attended with the community energy staff member. The workshop was towards the end of the GP project and we were asked to present data on how much residents had saved through the community energy measures including advice on tariffs, use of energy monitors, and information the Warm Home Discount (WHD). The project staff member and I had collected a wide range of data which suggested a wide range of savings. However, in my view the staff member had not qualified the level of savings relating to the WHD by identifying there had not been enough time to follow up whether households had successfully received the WHD. The second example also relates to community energy and the inclusion of a headline savings figure in the final report that

potentially over-extrapolated the savings information, but which had been agreed as a project outcome by the project managers and the project intermediary.

Reflecting on the above examples identifies how internal governance, the influence of donors, and M&E and research issues collided (Creamer 2015) and underlines the importance of focusing on CSO governance issues in analysis of sustainable place-making. The GP project was coming to a finish and judgements over the success of the community energy activity were particularly focused on savings per household. The staff member therefore felt under pressure to communicate savings to try and secure further funding. In addition, I was less confident in the effectiveness of the community energy activity than the UA activities. Another staff member had commented over the poor performance of the community energy staff member a number of times during the project. At the time of the presentations, I had conducted less robust research into community energy than UA due to a range of factors including difficulties conducting research at a household level. Householders were often reticent to share information and there had been less chance to build trust and rapport as the project had worked with many households on a one off basis rather than developing long term relationships (Hargreaves et al 2013b, Lorenc et al 2013, Reid et al 2015). In addition, the staff member was less engaged in M&E feedback and did not enable as much research to take place.

Trying to navigate through these tensions.

To respond to these challenges, I focused on developing learning for the project through building a large and credible body of qualitative and quantitative research material. For community energy project, by the end of the project I had interviewed 40 householders and eight wider stakeholders and helped develop a database of savings information and household vulnerability. I presented constructive criticism as suggestions for improvement so that I was not presenting myself as an expert with recommendations. I also challenged information presented by the project internally in meetings. I managed internal and external reporting in different ways, and didn't include detailed project level constructive criticism in external reports available to stakeholders, but highlighted some challenges which could be followed up with further work.

I did not challenge BLF as I did not want to jeopardise any potential for the GP partners to access future funding. The GP project staff did not challenge BLF either, such as asking why is the community energy activity being commended on producing data but at the same

time not being provided any funding to ensure sustainability of activities or continuation of staff. Feeling unable to challenge the power of BLF due to a reliance on future funding was an underlying issue throughout my research and illustrates the unequal power dynamics between BLF and its CSO funding recipients.

6.6) Conclusion: complexities and benefits of case-study research into an ongoing project

I really enjoyed the research. The GP project staff, volunteers, participants and stakeholders provided constant access to information and provided a wide range of interesting stories and perspectives. Due to the levels of access my research provides a detailed case study account of the strengths and challenges of a civil society sustainable place-making project working in a deprived area of the UK. The research provides important information for practitioners and academics, in line with calls for learning from projects in action to develop potential for wider support (Holland 2004, Cousin 2005, Franklin and Marsden 2015).

A collaborative approach helped me conduct the research, access the field, develop research aims and objectives, and continuously test my findings through feedback. The project was very open to the research, having chosen to fund a PhD researcher to provide M&E information. In addition I worked together with the project managers to develop a focus on qualitative research and a focus on the impacts on the lives of marginalised people the project worked with.

I believe I helped the project by producing a range of findings through the qualitative and quantitative research tools that were used to improve effectiveness and sustainability. There were challenges and ethical dilemmas in the field especially relating to positionality and in trying to be distant, to avoid emotional attachment and at the same time be a critical friend to provide support, and this impacted on the research at specific points (Tornaghi and Van Dyck 2015). These tensions crystallised towards the end of the funding when staff and participants were concerned about what would happen to project activities and jobs, and communication between the BLF, project managers and staff and beneficiaries seemed to break down and I felt caught in the middle.

I felt that the BLF could have provided more scope for constructive dialogue on which activities could continue to be funded and better direction for the M&E and research to inform this dialogue, including sharing important lessons from other projects. However, I didn't challenge BLF as I didn't want to jeopardise future funding possibilities. But, to navigate my way through, I concentrated on trying to produce detailed, credible and robust information based on feedback from staff and participants, triangulated with quantitative data (Mertens 2007), to report to project stakeholders and to produce detailed empirical research information.

The following chapters, 7 to 9, present the results of the empirical research with a focus on the outcomes of the different GP activities, how internal and external governance issues impacted on their effectiveness, and the potential for long-term sustainability. Findings are illustrated through examples from the project activities and the voices of staff and participants. Chapter 10 also presents views from staff and participants on whether they saw connections between their involvement in the project and working towards environmental sustainability, and how any connections could be developed over the long term to engage more people in tackling climate change.

Chapter 7) The impacts of urban agriculture activities on marginalised people and communities

This chapter begins the presentation and discussion of the research findings with a focus on urban agriculture (UA) activities. The chapter explores whether the activities were able to make an impact on people's lives and in communities in the same way as UA projects explored in the literature. For instance, a range of research identified that UA activities had impacts on improving health and well-being, food security, place-making for marginalised groups, and social justice (Buckingham 2005, Baker 2005, Staeheli 2008).

UA activities were a key focus of the Green Prosperity project in terms of the number of activities, number of staff and continuous engagement of participants. The project was flexible in how it developed its mix of UA activities which included a community garden, the family growing project, food growing and cooking training courses and support for city wide events. This chapter explores how the project developed its UA activities, who was involved and what were the main benefits, with detailed analysis of four main activities as vignettes: 1) volunteering and the community garden, 2) the Family Growing Project, 3) the Harvest Festival – a city wide free food event and 4) UA training courses to marginalised groups with the example of refugees. These case studies have been chosen because they provide contrasting examples of engagement of marginalised groups, analysis of individual and community-level benefits, and long-term sustainability. The vignettes also illustrate whether involvement in activities helped empower participants and increase their voice in democracy. By the end of this chapter we will have an increased understanding of how UA activities can benefit marginalised people and communities, but also there are indications that outcomes can be fragile without long-term sustainability. Pseudonyms have been used for respondents to protect anonymity.

7.1) Vignette 1 – The community garden and engagement of volunteers

Engagement of volunteers was a strong element which connected many of the UA activities. The project developed a strong team of volunteers who input time, skills and labour into supporting a range of different UA activities working in the community. The community garden at East Hull Community Farm (EHCF) was the 'place' used for

developing volunteering activities and building a team of volunteers (Featherstone et al 2012, Franklin and Marsden 2015).

The initial project plan focused on developing a demonstration garden, and included broad targets relating to volunteer hours and engaging vulnerable residents in GP activities outside their own home but not specifically through the community garden. Different partners had different targets, with Probe focusing on gardening activities, and EMS focusing on volunteering. However, staff from both organisations worked together to bring in volunteers as a way of engaging the community to develop the community garden and as a way to bring benefits to the volunteers. Kate, the project gardener with Probe, identifies how she needed the support from volunteers to initially develop the community garden.

‘When I started by JD [Job Description] had quite a few different angles to it. One ‘was to create a demonstration garden at the farm to demonstrate growing food’. it was quite broad, there wasn’t anything specific about working with volunteers, as I was working only 2.5 days a week I don’t think it would have been possible without a volunteer project at the farm’.

Engagement and commitment of volunteers

The project initially focused on developing the community garden at EHCF and building a team of volunteers. Wednesdays were allocated as the volunteer day at the farm, and the sessions were open to anyone who wanted to attend, and people could come and go at any time. There was an informal approach but Kate and Mark (the community outreach officer from EMS) were usually both in attendance and led the planning of activities. The project also arranged a wide range of other activities including Pizza sessions, open days, and seasonal activities which were open to families and non-volunteers. The project was restricted to one day a week at the community garden by the Kate (Probe gardener) being part-time and because of restricted access to the EHCF.

As a team of volunteers was developed, both Kate and Mark also identified the potential of using the volunteers to support the outreach of other UA activities (Milligan and Fyfe 2005). These activities included annual Seed Swaps, EHCF open days, a beekeeping project, the Family Growing Project (FGP), a model garden at the eco-house, the Hull Harvest Festival, and tree-planting in local schools. The Seed Swap and EHCF open day in 2015 both attracted a large number of participants (with at least 300 attending each Seed Swap

and 250 attending the open day) and also helped the project to connect to local residents interested in growing food, including two of the regular local volunteers and one of the families from the FGP. These activities were also important in providing a variety of volunteering activities and also enjoyed very good feedback from participants. This helped build connections for the project in the community and build connections between volunteers and participants, forms of both linking, bonding and bridging social capital (Aiken 2012, Franklin and Marsden 2015). For instance, Mandy became a regular volunteer:

Mandy: ‘So we went to the Freedom Centre, enjoyed the Seed Swap and got some information off some of the people there and got lots of seeds, so we could move – quite excited and we’re really geared up to get going on it straight away which we did do together in the garden’

Interviewer: ‘you and your Grand-Daughter?’

Mandy: ‘yes, just us 2 because they live at the side of me you see, because we are in and out of each other’s back gardens, so it was good. And while we were at the FC there’s telling us about GP that we were looking for volunteers’.

Approximately 120 volunteers committed nearly 5,000 hours to a range of different UA activities as shows in Table 7.1 below.

Table 7.1) UA volunteer hours by activity

Activity	Volunteer Hours
Volunteer Garden - East Hull Community Farm	3,678
Seed Swap	422
Family Growing Project	376
Eco House Garden	153
Eco Clubs	79
Bee-Keeping	139
Harvest Festival	108
Total	4,956

The project had an inclusive approach to developing the volunteer group which was open to anyone who wanted to attend, including volunteers from any area of Hull. Therefore they did not follow an approach to exclusively target particular marginalised groups by location or by population type (Staehele 2008). The project welcomed volunteers from outside the target wards partly to help a wider range of vulnerable people who weren't finding the same volunteering opportunities in other parts of Hull (three of the most regular volunteers were from the north Hull area) and also to engage more people in developing the range of UA activities.

However, the project focused its volunteering activities in the two target wards as a way of ensuring the volunteer activities benefitted the local area. The Community Garden is at the EHCF in Longhill, the Eco-House is in Southcoates East, the Family Growing Project and Eco-Clubs were across both wards, with the project viewing the input of volunteers from outside the target wards as directly helping projects in the target wards. The following Table 7.2 shows the number of volunteers from each ward and the hours committed.

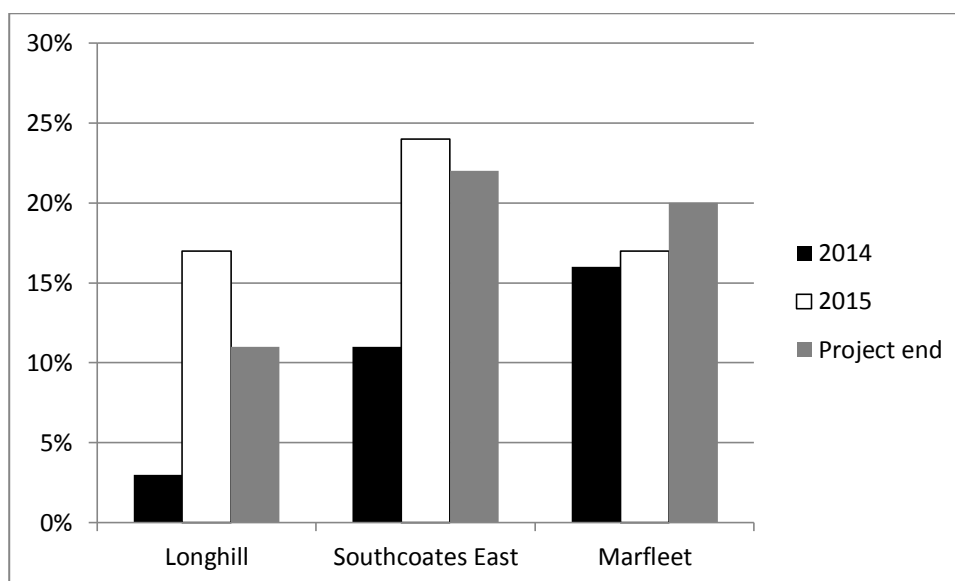
Table 7.2) UA volunteer inputs by ward

	Numbers	%	Hours	%	Hours per volunteer
Longhill	7	6%	523	11%	75
Southcoates East	7	6%	1072	22%	153
Marfleet	9	8%	955	20%	106
Hull East	20	17%	680	14%	34
Hull North	23	20%	990	20%	43
Hull West	13	11%	252	5%	19
Other	11	9%	172	4%	16
Unknown	26	22%	210	4%	8

In the early stages of the project there was difficulty in attracting volunteers from the target wards. In 2014 volunteers from Longhill accounted for 3% of hours, Southcoates East 11% and Marfleet 17%. Staff identified this indicated reticence of people to get involved in the project in the early stages, resonating with research identifying there can be difficulties in engaging with people in deprived areas(Williams 2003, Matthews 2011).

The project focused on engaging local volunteers through using a variety of methods to reach local people and managing a mix of activities in different location. The number of hours from local volunteers was increased from 31% to over 50% across the three wards – this is shown in Figure 7.1 below. The project was particularly successful engaging with approximately 14 local volunteers (from the three target wards) who put in over 50 hours each, with two of these volunteers putting in over 300 hours. The focus on engaging local volunteers on a continuous basis also explains the difference between hours and numbers, with the local wards providing a lower number of volunteers but a proportionately higher number of hours.

Figure 7.1) UA volunteers: percentage of hours committed from target wards 2014 and 2015



The GP project was particularly successful at engaging with people with learning disabilities, mental health issues, and the long term unemployed. All the regular volunteers identified they were vulnerable or marginalised in some way. A number of volunteers had significant health and well-being challenges including mental health issues, or were caring for relatives with health and well-being issues. Some volunteers felt isolated and wanted to get out of their home. Approximately 40 of the 116 volunteers of working age were not in work for a range of reasons including health reasons or learning difficulties, but also because of a lack of local employment opportunities (Porter et al 2015).

However, a potential criticism of the project was the difficulty in engaging with young people (18 to 24), which research indicates would need specific approaches building on learning from other projects and information from the community (White and Green 2009, iWill 2015). In addition, there was only one regular volunteer from a BME community, who then dropped out due to caring responsibilities. There were also a higher number of male volunteers (64) than women (52) and there was a more striking difference in the number of hours with male volunteers contributing 3378.5 hours and women contributing 1473.25 hours, identifying that there were more regular male volunteers putting in more hours. This was due to a range of factors including the different types of activities, including some of the activities being manual labour intensive such as building planters and digging over land. However, female volunteers also had more caring and work responsibilities restricting their input.

The volunteers engaged strongly voiced how they enjoyed volunteering and going to the community garden for a number of reasons. These reasons included being outdoors and close to nature, the sense of peace and developing relationships with other volunteers (Bhatti et al 2009, Milbourne 2012, Tornaghi 2014). Some volunteers did not have access to or were not able to manage their own garden (Milbourne 2012). There was also a strong focus on appreciating how the project was implemented including the friendliness and flexibility of the staff, the reliability of ongoing activities every Wednesday, and the different types of tasks from digging to garden design (Bhatti et al 2009). The volunteers also really enjoyed the opportunity to get involved with other activities working in the community.

The staff focused on helping the volunteers and providing stability, including a focus on health and safety such as ensuring Disclosure Barring Service (DBS) checks which indicate a past criminal record, helping ensure the farm is a safe environment and making sure the volunteers feel supported. Appreciation for the work of the staff in making the farm a safe and welcoming environment is shown in the following quotes:

‘Coming here, it is flexible, nobody criticises, or says anything negative about where were you last week or whatever, and that’s one of the things that I enjoy about it, you’ve got the freedom to come and go. When I’m here I can more or less pick and choose what kinds of jobs I do’ [Regular volunteer Helen who continued as chair of the gardeners in 2016]

One local volunteer from Longhill, Marie, describes how she came to the farm when she could because it offered: 'Tranquillity in the middle of a bloody housing estate'. This tranquillity and being in a safe supportive environment is important where people have day to day challenges, including isolation, caring for relatives or mental health issues. Marie also describes the importance of being able to spend time in a natural space in a challenging housing area (Milbourne 2012).

Staff identified there were significant challenges in managing volunteers, requiring skills, dedication and patience. For instance, in 2014 someone who had been convicted of a serious crime and required ongoing police monitoring tried to join the project, the individual gave misleading details which the staff members double checked and which required a considerable amount of work from a member of staff to check and get the relevant information – the individual was not allowed to join the project. In 2015 MIND mental health charity referred a volunteer from Marfleet with mental health issues (Graham) to the project but did not then assign a case worker, putting considerable pressure on staff at the Farm. MIND then assigned a case worker who attended with Graham, although Graham now attends on his own again. The project also worked to manage elements of a 'lads culture' that developed at the farm for a couple of months, that appeared centred on one volunteer who then left the project in late summer 2015. As an indication of the staff support required, it is estimated the equivalent of two full time staff over 3 years, or approximately staff 2,000 hours, were spent on supporting volunteers and their input into activities.

Despite ongoing sensitive management, volunteers did drop out of the GP project for a variety of reasons including finding work, moving on to different volunteering opportunities and for personal reasons. Some volunteers indicated there was a 'shelf-life' to being involved or realised it was not for them. Three of the female volunteers would drop out of the project for extended periods due to caring responsibilities for family members, with one dropping out of the project altogether. For instance, one female volunteer identified how it was sometimes difficult to attend project activities including the farm because of her daughter's medical needs:

'I really like coming to the farm, it gives me a dose of feel-good, when I come here. Especially in the summer months when it's nice like this, it's not a problem today ...last week it was a problem because she [daughter] had a major anxiety attack'.

[Helen, regular volunteer through the project and became chair of new gardening group of volunteers at the farm in 2016].

Two volunteers indicated that they didn't enjoy a 'laddish culture' that developed at the farm for a short period, indicating the need for projects to manage manifestations of negative agency (Kabeer 1999). In addition, some of the women volunteers suggested a women's only session although this did not fit in to the open nature of the sessions which could only be held on a Wednesday.

Four volunteers also felt that the loose planning and flexibility meant there was a lack of clear supervision on tasks which didn't always work well for them. Two volunteers I interviewed from outside the target wards stopped being involved after confusion as to whether they could still volunteer as they did not live in the target wards.

Towards the end of the project there were also increasingly strained relationships between the project staff and volunteers and the EHCF farm staff who were not employed on the GP project. There was an incident where one volunteer was shouted at for picking up a pear which had fallen from a tree. A project staff member also had a heated argument with a staff member and a support worker working for another group over a bike being hidden. These tensions with the farm were picked up by volunteers:

'....I don't know if it's a union –you stick to your part, well stick to ours – I got that impression with the fruit, because they was saying - this is ours, keep off it, don't touch it. You can understand that. But if they're not going to do anything with it – a lot of that went to waste.....so I'm not fully sure on how compatible together they are, I think they could work as a team a bit better' [Chris – local volunteer].

There had been ongoing issues in the partnership between the GP project staff and staff at EHCF but they seemed to come to a head towards the end of the project when there was considerable stress around the future of the volunteer group and access to the farm, which could have contributed to these strains.

Outcomes for volunteers

During the research the volunteers strongly voiced a wide range of connected benefits from being involved in the different activities including enjoying gardening, connecting with past memories, developing gardening skills, growing fresh fruit and vegetables, educating children, reducing social isolation, developing skills and confidence, improving

mental health and helping them give back to communities through volunteering in social projects. Many of these benefits resonate with a wide range of studies into gardening and UA as examples of place-making including by Bhatti et al (2009), Pitt (2014) and Miller (2015) who brings in a focus on different types of benefits at individual and community levels. Examples of these benefits are described below and reinforced by some of the quotes received from volunteers in interviews.

Many of the outcomes were linked to the enjoyment of gardening (Bhatti et al 2009, Miller 2015). A local volunteer from Longhill identified how the enjoyment of gardening provided the platform for becoming a regular volunteer at the community garden:

‘I enjoy the gardening side, I like to grow things myself, and to come and get advice and see where I might be going wrong, just any help in general. I like to be digging and cultivating, anything to do with gardening and being outside – I’m happy to be part of that. It’s good to be amongst people who you don’t know - and meet new friends. [Chris, regular volunteer in 2015 who has since found a permanent job].

In this quote Chris illustrates how the volunteers developed strong bonding social capital with each other, which also provided a platform for the volunteers supporting a wide range of other activities (Aiken 2012, Franklin and Marsden 2015). Other volunteers strongly voiced how the chance to garden with others also reduced isolation (Milbourne 2012, Crane et al 2013, Purcell and Tyman 2015):

‘I don’t have a garden but a yard. I was really surprised at the project and the team. I have a foster daughter and a grand-daughter, it can be quite isolating as a foster parent. I have made friends and learnt new skills’. [Regular 2014 and 2015 Volunteer Bel from the wider east Hull area, who has since stopped fostering and has found fulltime work as a carer].

Bel describes how she uses the farm to help deal with stresses of being a foster parent and also indicates the importance of support from the project.

‘it’s one of the few things that we’ve both got an instinct for and that’s nature and gardening. And that pulls us together when sometimes the outside world is really tough, for my foster daughter, because it’s all rules and regulations and control, whereas here, its environment that she fits into that she feel she is in control of, she’s been independent and helping and producing, so yes it’s been good for her.

And it's good for me because everyone else is aware of the relationship, and the situation, so I feel supported as well'.

One volunteer who did not have much gardening experience described his enjoyment from becoming involved, indicating they would not have taken up gardening without access to a project:

'I don't know a lot about gardening, but I can't take the information in, that's one of my problems...I enjoy handling plants, I enjoy digging, planting things, there's something about it that's interesting'. [Regular volunteer Paul, still involved at the community garden to end of 2016].

For some volunteers there was a strong link between gardening and memories of gardening with parents and grandparents or with their own children (Bhatti et al 2009). One volunteer reminisced that:

'Yes, the only time I ever did this was when I was a child and we had gardening tasks to do as children so we could earn pocket money. Mum and Dad's garden was always full of gooseberries, raspberries, you name it they would grow it. And when my children were very young we had one section of the garden where we grew things. My eldest sons they loved it as children, they was always there picking at the garden peas, or digging up the strawberries'. [Regular local volunteer Mandy, sporadically involved in 2016 but attended less due to involvement in range of community projects].

Tim is a regular volunteer from Southcoates East described his family connection to gardening: 'my family is, my grandad used to have an allotment....and then over the years, my dad's used to, he knows Derrick [another volunteer] but I don't think Derrick knows him... I've learned mainly off him over the years, it's part of getting on with things'. At the time I didn't pick up on the mix of present and the past tense in the quote, but Tim later talked about how he came to the community garden to help deal with the recent bereavement of his father, but didn't speak specifically about this in our first interview although he alluded to it in the quote.

Continuing the importance of gardening with family members (Miller 2015), three female grandparents, Bel, Gloria and Mandy, identified the importance of using the information from the farm to help educate their grand-children:

‘And I’ll tell you something that is really important to me because I’ve got a grandchild, is that I’m teaching her, since she was 6 months old she’s been coming here, and she knows where vegetables come from – it’s incredibly valuable. I’ve brought my children up to know you can grow things, where things come from, it’s really valuable for her.’ [Bel, who also brought her grand-daughter regularly to the farm as part of providing day-care].

Mandy and Gloria both initially came into contact with the project through the Seed Swap held in the Freedom Centre and where people could collect seeds and advice, before then volunteering with the farm. Mandy describes how her grand-daughter wanted to grow vegetables after attending the Seed Swap: ‘she also wanted to have a go at growing vegetables and with her coming with me to the seedbank, her enthusiasm was fired up, she picked out of all the seeds that were collected what she wanted to grow herself, and she did she had a go’.

Developing skills and confidence

Developing confidence and different types of skills was important to a large number of volunteers (Ferris et al 2001, Kirwan et al 2013, Tornaghi 2014). A number of volunteers were interested in developing gardening skills. The main focus of developing gardening skills was to improve knowledge for application at home, in allotments or to use in the project, linked to the enjoyment of gardening. Gloria and Chris describe how they use advice from the project to improve their own gardens:

‘I’m learning the seasons here in the UK, because I was just planting in my house, dying, and I didn’t know that you first put it on the window, at home we put it in the ground because the soil is always hot, but here the soil is always cold, so I didn’t know it needs a little bit of warmth, then it germinates’ [Gloria – regular volunteer 2015].

‘I’ve got all my fruit trees which I love, so I’m learning to manage an orange tree at the minute. I like to be in my garden ... but these guys give me a little bit of advice – I’m hoping to get more next year when I do stuff properly. I’m going to try cucumbers’ [Chris regular volunteer 2015].

The staff and some of the more experienced volunteers provided support and guidance at the community farm.

Some volunteers were also interested in more formal gardening focused qualifications. The project supported six volunteers to study Horticulture Courses at Hull College as a reward for contributing hours as volunteers. This was also a way for the project to build the skills and knowledge of volunteers to support other UA activities. Two of these volunteers, Arthur and Tony, were unemployed on state benefits and the Department for Work and Pensions (DWP) met the costs of course attendance. However, Arthur and Tony did not know about this scheme and needed support from the project to facilitate access. Four of the volunteers did not qualify for DWP funding and required financial support from the project. There were a mixture of different motivations for the volunteers who attended the horticulture course. All the attendants wanted to improve existing gardening skills and be able to apply them at the community garden and through other UA projects including the Family Growing Project:

Interviewer: 'What did you enjoy most about the course?'

Bel: 'Probably, procedures of and understanding how plants survive, the actual design side of it was very much a project I did on my own but I actually implemented it a design through an apothecary garden here [community garden]' [Bel was a regular volunteer in 2014 and 2015 and was speaking at the community garden].

Arthur and Tony, who were unemployed, were also interested in picking up employment in gardening if possible.

Other volunteers were offered this opportunity but did not take it for a variety of reasons including not being interested, not being available on the days the course operated, the literacy requirements of the course, and wanting to see how the first tranche got on.

Whereas some volunteers were particularly focused on building up gardening skills, a number of volunteers wanted to keep active and pick up more general skills during periods of unemployment. Two volunteers began with the GP project but then volunteered on a local wood recycling project to increase woodworking skills, after being linked by the GP project. One of the volunteers, Bill, discussed his motivations:

'No jobs about. What am I going to do? Like being outdoors for a bit and doing this voluntary work.....I like them both, ..do the gardening, making things, working as a team, making friends....'

Four of the regular volunteers who were long term unemployed have now stopped being involved in the community garden after finding paid work. The quote below is from Chris one of the regular local volunteers in 2015 who left the project to join an employment training course, indicating the difficulties of finding a job in the local area, and also how volunteering helped him in the period before he successfully found work.

Interviewer: 'Are you actively looking for work now?'

Chris: 'Oh yes definitely'

Interviewer: 'Is it easy?'

Chris: 'no, because they say in Hull for every job there's 50 people going for it. Part of it is me not knowing what I want – I'm qualified in certain things, but it's getting your foot in the door again. Because we want to work in the NHS, we want to help people in palliative care, but we've also done counselling and psycho-therapy - so we've got different things that work together, but it's just getting back on our feet. ...in the meantime I'm just looking for a bit of casual work to keep me going, but this helps, filling in a day in. Giving back, through what we're doing here'.

The quote below is from a local volunteer who left the project to go to University and wanted to build on the food growing and health knowledge and skills he developed with the project. Dan was one of the relatively few people under 30 that volunteered with the project.

'Like I said I had an epiphany a while ago. I learnt about where was going wrong with my diet, I like learning about food, I like helping people. I really liked what I was learning....why not do it as a job' [Local volunteer – Dan - who has gone on to University].

Chris did find a new job. However, many volunteers including Arthur, Tony, Bill and David below did not find work. In the quote below David identifies identified how he used the volunteering to keep active and get a good reference. However, the quote from David above also illustrates the psychological effects of not being able to find work.

'I was just stuck in my flat, just watching TV, so it was nice just to come, also I can get a reference..... The benefits office last year, telling me to go and look for work, I know for a fact there's no work....it just makes you depressed' [Regular local

Volunteer – David, who stopped volunteering after the GP project finished in 2015, but has not been able to find long term employment].

From the volunteers' perspective, the main focus of skills development was improving their own skills and confidence. However, from the project perspective improving the skills and experience of volunteers also increased the potential for volunteers to input into project activities (Andree et al 2015, Bradbury and Middlemiss 2015, Parkhill et al 2015).

Improvements in health and well-being

Volunteers, regularly voiced how volunteering helped them build confidence, and deal with personal issues and for some volunteers, help work through stress, depression and more serious mental health issues (Ferris et al 2001, Bhatti et al 2009, Pitt 2014). Getting out of the flat and reducing isolation was a key theme running through many interviews, with reducing isolation identified as a key way of helping health and well-being (Buckingham 2005, Kingsley et al 2009). Being able to build friendships was a key part of this, and an example of the friendships developed were that a number of volunteers worked together to help volunteers and other local residents with their own gardens outside of project time.

There were also many other examples of improving mental health and well-being. Tim who put in over 300 hours into the project identified how the GP project helped him deal with bereavement after the loss of his father, and also explained how he was not able to talk about how deeply this had affected him before regularly attending the farm. Another regular local volunteer, Nancy, who has suffered from bipolar disorder has voiced how the project has helped her to get ready to go back to work and is now working with a friend to start her own business.

'It has been fantastic for me health wise, mental health wise. This project has helped me get ready to go back to work, I want to go back to work' [Nancy – regular local volunteer].

An early volunteer in 2013 and 2014 recovering from ME describes how growing food at the farm and at home helped her recovery, with the description of the therapeutic benefits from the different gardening activities and results resonating with the findings of Bhatti et al (2009) and Pitt (2014):

‘Recovering from ME everything is really slow, I love to see the changes with what your growing, keeps me connected to time, and seasons and stuff. I don’t think I realised that until now but that really helps. Also kind of doing something and then seeing a result from it, small easy tasks , see something from, plant a few bulbs and you get really beautiful flowers, you’ve got an end result, that really easy to manage’.

For two regular volunteers with mental health issues, the regular volunteering forms a vital part of their care in the community. The role of UA in supporting the roll-back of government care for people with serious mental health issues is criticised by Ferris et al (2001), but both these volunteers voiced how they wanted to live independently and access the project. One local regular volunteer – Graham – was a resident at a mental health hospital but now lives in sheltered accommodation in Southcoates East supported by HCC and MIND. MIND referred Graham to the project and Graham and his family identify the project helps him deal with mental health issues, recover from a stroke and also tackle the potential onset of diabetes through increasing regular exercise. Graham’s mother also described how the project together with the support from MIND and CASE (another organisation providing life skills support) has improved his confidence, including now going to the community garden without a support worker.

‘you wouldn’t know him from 2 years ago, because he wouldn’t look at you, mind you having a stroke can change your personality – but he even asked me how I am which nearly bowled me over, because he never used to..... But it is better now that it has ever been’ [Graham’s mother who came with Graham to our interview]

Interviewer: ‘Would you put any of that to coming here?’

‘Oh yes, and CASE as well, both these places have been an absolute god send. Without it, he wouldn’t be like he is, because [he does] like to be out’.

Another long term volunteer, Paul, has been discharged from community mental health care and uses the volunteering at the farm as part of a regular weekly routine to help him with every-day life after being referred to the project by his Community Psychiatric Nurse.

Interviewer: ‘Does coming to the farm help you?’

Paul: ‘Oh definitely, definitely, I’ve got somewhere to go, I can see people,....before I had the farm, I had no one, I didn’t see my family, I didn’t have friends.....I was

very lonely. But now I've got somewhere to go, even if it's only once a week, yes, I can look forward to it. So I think it's really helped yes'.

Paul's referral could be viewed as being in line with a social prescribing approach although the project received no income from local health providers (Kimberlee 2015). Both Paul and Graham identify how they would not have anywhere to go on a Wednesday if it wasn't for the community garden. Both also value the therapeutic benefits of being outside in a nice environment and working at the community garden at the farm, in common with the participant who described the garden's tranquility. The individual and community mental health benefits of access to nature are described by Ferris et al (2001) and also link into the importance of green spaces in reducing poverty for vulnerable people (Milbourne 2012).

'When you're here, you're almost in the countryside, and the countryside is very therapeutic it's very serene, it calms you down, so it's very useful to get out into the community' [Paul].

Paul is also involved in a new herbal garden operated by a new CSO, Down to Earth, which is managed by former GP staff. Paul has taken on responsibility for being in charge of the site when the two senior officers are not there. He has completed health and safety training, and is going to take mental health focused health and safety training – this is a major step forward for Paul who had previously stated he was not able to take training and qualifications due to a poor memory. Due to the number of volunteers who identified they benefitted from improved mental health in some way, this could be considered a community-level benefit as described by Ferris et al (2001). The feedback from volunteers also identifies how they enjoy being involved in gardening activities and therefore the GP project is not seen as a poor substitute for state care.

Improving food security for people on low incomes is identified as a health benefit of some UA activities (Buckingham 2005, Kirwan et al 2013, Sadler et al 2015). Producing food from the farm was not the main focus of the project but formed an important part. Any food produced was harvested on an ongoing basis when it was ready and shared informally among volunteers, some of whom take the food and some don't. Graham a volunteer with mental health issues, takes food home for his mother to cook for him. Arthur didn't used to take food home, but was diagnosed with diabetes in 2015 and has used fruit and vegetables from the farm to help improve his diet. A number of volunteers combine

produce from the farm with food grown at home (Miller 2015). When asked whether she takes food home with her, Gail a local volunteer from Longhill replied: 'Oh yes, the onions, which was gorgeous, the carrots which was gorgeous, everything was gorgeous'. Stakeholders also identified how the production of food from the community garden increased over the years, with Mark identifying in early 2017 that:

'there is no question that the food from the farm has helped improved the volunteers diets' [Mark UA staff member].

Local volunteers Chris and Gloria used the farm to help improve their food growing at home for themselves and their families:

Chris: 'I think when you grow your own you enjoy it more, and it saves on the pennies'.

Interviewer: 'Is the financial side important?'

Chris: 'It could be but I don't take it that serious, but it certainly helps. And I like to give it to the family'.

Gloria is a migrant from sub-Saharan Africa who lives in Southcoates East and became a regular volunteer at the community garden to learn more about growing food in the UK seasonal conditions so she could grow more at home.

There was no formal arrangement for supporting other food projects with the food produced with the food produced due to the irregular seasonal nature of produce and also because many foodbanks will not accept fresh food. However, the GP project and volunteers also supported a city wide food event, the Festival event through providing fruit and vegetables from the farm, also linking the growing of fruit and vegetables to giving back to the community.

Helping people in financial difficulties

Helping people in financial difficulties was a key aim of the GP project across its activities. At one level the project aimed to reduce household expenditure through reducing energy and food costs, but reducing food costs was more of a focus for the family growing project than the community garden. However, project staff also realised that a number of volunteers were vulnerable to benefit changes which meant that they may have periods without any income and need to access food parcels. Increasingly punitive benefit changes

are argued to impact on the health and well-being of vulnerable people (Lambie-Mumford 2013, Perry et al 2014, Snell et al 2015). Helping volunteers become more resilient to benefit changes became an unanticipated aspect of the project.

A large proportion of regular volunteers were receiving state benefits and concerns over punitive benefit changes were ever-present through interviews at the community farm over the three years of research (2014 to 2016). In the initial stages of the project the main concern was over benefits sanctions and the increasing age of retirement meaning that older people had also become vulnerable. For instance, a volunteer identified: 'I said to be myself I would never go to a food bank, but when I got sanctioned a couple of years ago. I got no grub in.....because they stop your money straightaway'. [Arthur – describing his first use of a food bank in 2014 at the age of 63]. A staff member identified how it 'stripped [Arthur] of dignity' to have had a benefit sanction at 63.

The GP project provided volunteers some respite from the concerns, volunteers also became more confident in discussing issues openly which meant that staff were able to provide support, and the growing support and confidence could be seen to strengthen resilience (Perry et al 2014). For instance, Arthur has input over 400 hours to the project and identified how his volunteering has been supported by the DWP local benefits office, which has reduced pressure on him to find full time work and also supported him to attend the horticultural course. Later in the project, Arthur describes how he had not used a food bank since being involved in the project. This outcome could indicate that being involved as a volunteer has helped Arthur influence a government agency, the Department of Work and Pensions (DWP) to increase its recognition of the needs of vulnerable people (Snell et al 2015).

Two other regular volunteers also identify how they have used foodbanks in the past, but have used foodbanks less since being involved in the project, although have not directly attributed this to the project. Many observers identify that volunteering is a positive way to improve resilience:

'But I think if communities are going to be more resilient and they can't be the passive receivers of services because those services are not going to be there anymore then, so you have to innovate and stimulate community action, which inevitably you need greater levels of volunteering to do that' [HCC Financial Inclusion Officer].

Mandy described how she became involved in the project to grow food due to a personal financial crisis after losing her job and before new benefits started, and then trying to adjust expenditure on lower levels of income.

‘we’ve had spells where we’ve been on the benefits and we’ve not liked that at all because that is such a grey area, so depressing and we had 8 weeks of being on the benefits You’re suffering with anxiety and fear thinking I’ve not got enough money for this, I’m limited on food, because I prioritise heating – the food, the gas, the water the council tax. it was a bit of a wake-up call for us and I said to [husband], we really ought to start growing our own I said because it would help towards things and it stemmed from that for me’.

Towards the end of the project, volunteers who had felt secure on certain benefits including the Disability Living Allowance (DLA) felt vulnerable to reassessments for people on disability benefits and the introduction of Universal Credit. For instance, in an interview in late 2016 Paul who had previously been in day-care for mental health illness expressed concern that he will be reassessed for sickness benefits in summer 2017, which could mean he would no longer be able to attend the farm. Val, the EMS manager recognised that increasing financial difficulties, including from benefit sanctions, were affecting a number of the volunteers and other participants in the projects, and went on to establish an affordable food project which is discussed within the sustainability section.

Volunteers giving back to their community

Against a common narrative that people out of work and on benefits do not want to work there is very strong sense of the project providing a platform for volunteers to give back to their communities, as demonstrated in the number of hours volunteers have committed to supporting GP’s work in the wider community (Larner and Craig 2005, Milligan and Fyfe 2005, Crisp 2015). Even though there was considerable staff support to volunteers, staff described how they could not have run the extensive range of activities without the input of volunteers. In addition, there was ongoing help between volunteers, which is not organised through GP. For instance a number of volunteers helped Nancy manage her garden when she had a broken leg. Giving back can be viewed as a form of bridging social capital between the volunteer group and the wider community (Aiken 2012, Franklin and Marsden 2015). Volunteer Chris identifies how gardening acts as a catalyst for helping people and giving back: ‘Yes, my sister, she got involved first – and she mentioned it to me

– she knows I was at a loose end, I’m in between looking for work, and it sounds really interesting – I like helping people, I’ll help anybody, along with gardening and growing things, it attracted me to it’.

Arthur and Tony accessed the project through attending work clubs, and therefore their involvement could be seen as a formal requirement of receiving state benefits (Crisp 2015). However, they both identify themselves as volunteers as they continued beyond the initial requirements of the work club. In an interview with Tony, he initially identified that he enjoyed the project because it helped him get out of his home and he enjoyed gardening, but then went on to identify how helping people was also a priority: ‘

Interviewer: ‘As well as getting out the house – you must enjoy helping people?’

Tony: ‘Yes, oh yes, oh yes’

Interviewer: ‘If you could put them in order gardening, helping people, or getting out the house, which one would you put first?’

Tony: ‘Helping people, Gardening, Getting out the house’.

Reading the question, it can be clearly interpreted as a leading question, but I was trying to bring out Tony’s motivations given his involvement in a large number of community focused volunteering activities.

An account of the experiences of Arthur and Tony and their involvement in the GP project are contained in Box 7.1 below.

Box 7.1) Individual stories: Arthur and Tony – long term local volunteers

Arthur and Tony are both from Southcoates East and have been involved in a range of the project volunteering activities. Arthur has input nearly 400 hours for the project working at the community farm, and supporting the family growing project, seed swap and the Festival.



Tony has dedicated over 150 hours to the same activities except he is not able to attend the farm on Wednesdays due to a past allegation of bullying from the farm staff.

Both Tony and Arthur are unemployed and were frustrated at being stuck in their homes with nothing to do and with few volunteering opportunities before the GP project.

As a reward for their volunteering input, the GP project facilitated both volunteers to attend Horticulture courses at Hull College. Both Arthur and Tony were able to attend free of charge as they are on Job Seekers Allowance. They passed their L1 Horticulture Award, the Level 1 Certificate then completed the Level 1 Diploma. Both really enjoyed the course, including the skills and experience of the staff, the flexibility of days they can attend (e.g. due to sign-on requirements), and the practical focus they can use in other gardening activities:

‘Everything was great, enjoy everything, I knew about plants anyway because I used to go out with my nanna, when I was younger.’ [Tony]

‘Everyone is friendly for a start, the tutors are real nice people, and everyone else is very pleasant... there are plants here that I never knew about, when I had my allotment, I never grew anything like that, I wish I had now, Primula’s really sell – people love them, they really sell. That’s the income for this place you see...yes, we could grow them at the farm’. [Arthur]

It took a lot of hard-work and dedication for them to progress through the course. Both started on level 1 due to low levels of literacy. Tony has severe dyslexia but was very committed to improving his reading and writing. In the following quote Tony identifies how he would need to improve his reading to move from the Level 1 Award to the Certificate, but which he then succeeded in doing.

Interviewer: ‘Would you like to move to the next level?’

Tony: ‘I am going to try, but I can’t read you see, so it will be a bit harder’.

Both Arthur and Tony say that the local DWP benefits office are supportive of their studying and volunteering, except for needing to rearrange attendance at college when needing to sign-on. Arthur said that volunteering and studying has helped his relationship with the benefits office, he had been sanctioned before resulting in going to a foodbank, but this has not happened recently. They both would also like to find full-time work in gardening related activities, if this kind of work was available.

‘I do this and I volunteer, and it keeps them off my back – they know I’m not sat at home – they know I’m doing summat, they don’t hassle me’.

Both Arthur and Tony really enjoyed the other volunteering activities working as part of a team and give back to the local community.

‘I like doing all the gardening....I enjoyed, the eco-garden, planting trees at the school’ [Tony]

‘Helping people? Yes I love helping people me, ...this lady’s got a garden, the council nag her, to get it done, sent her a letter saying if she don’t get it done...she gets a lot of volunteers like us, spend a day on the garden, cleared it, dug it, it’s beautiful. [Arthur]

Arthur also used his gardening experience and learning to give advice, illustrating an increase

in skills and confidence. In the following quote Arthur describes how he gave advice to people during the Hull Harvest Festival for which he volunteered on the day:

‘Yes, yes, the old lady, she put some stuff in the garden and it dies, she uses the same part of the garden every year, and I said, what causes that is that your soil is contaminated, the best thing you can do is put things in the back of the garden, put ‘tatoes in, they clear that sort of thing up..... its bacteria in the soil’. [Arthur].

By the end of the project Arthur and Tony were unable to move on to level 2 courses due to the maths and English requirements. Arthur and George were interested in finding other Level 1 courses, however, the college site in Southcoates East has now been taken over by Siemens for workforce training, and Hull College no longer provides horticultural courses.

Both Tony and Arthur are still involved as volunteers in projects operated by EMS, including tree-planting in schools, developing community allotments. A staff member identified how he said to Arthur he was sorry he couldn’t start paying him for his work, but Arthur replied he had never had chance to be involved in such a positive project before.

Volunteers and the community garden: Long term sustainability

After the GP project, both EMS and Probe developed activities to keep the volunteer group together and engaged. Probe continued supporting activities at the community garden. EMS continued to involve the volunteers in a range of their new activities. However, funding was not easy to access and each effort was fragile without the continued input of the GP partners and staff. A detailed description of the sustainability of the volunteer group is provided in Chapter 9.

7.2) Vignette 2 – The Family Growing Project

The role of volunteers in enabling the project to reach into the wider community is demonstrated by the Family Growing Project (FGP). The FGP provided ongoing support to 10 local families from the target wards to grow their own food through 2015. The project was managed by Kate, the GP project gardener from Probe and Mark, the volunteer coordinator from EMS. The project was initially conceived by Kate, who explained how the FGP idea was developed based on learning and with input from volunteers:

‘we [had] tried different approaches and families...we had to work with a certain number of local households, and they seemed to be the people who were most interested in growing food, because we tried doing at the farm, we tried doing

sessions for adults to learn about growing food just on their own - there wasn't really much uptake on that... [we also tried] running short courses for families through the summer – I think it had its role in getting people to know about the project and getting their enthusiasm but there wasn't much sustainability – it probably didn't give them enough skills, they probably would have been able to grow a salad on their window but it didn't give them enough skills to do gardening... 'the idea of the mentor project just came from the volunteer group, that we had at the time and the fact we had quite a few experienced gardeners who were working with us, and it just seemed like common sense that they should be linked with families – if our objective is to work with local families, to get them more involved in growing'. [Kate]

The families were supported to grow food through the physical establishment of food growing areas, ongoing advice and mentoring, access to training and resources such as compost and seeds. The project did not target only the most marginalised families, but worked with families who expressed an interest. All families cared for children under 10 (their own, grandchildren or through childminding) with many children under five at home during the day. The families also included some people who are in financial difficulties, families who are providing care to relatives and also people in ill-health. The families were engaged through a combination of methods including attending early Green Prosperity training courses and other activities, wider communication with local stakeholders and leafletting.

Ten volunteers supported the FGP, including eight from the community garden, and volunteers contributed 376.5 hours to the project. Two Community Garden volunteers (Helen and Derrick) became regular mentors, providing ongoing support and advice through the project. Derrick is an experienced gardener from Southcoates East who contributed over 300 hours to the project and by late 2016 is still involved with the community garden. Nancy also volunteered to mentor but had to cut short her involvement after she sustained a serious leg injury. The project also recruited two experienced gardeners as additional volunteer mentors who were both very from east Hull, Terry and Albert. Five male volunteers from the Community Farm formed the garden team who prepared the growing areas for some families – including digging over land, clearing weeds and building raised beds. Due to a range of issues including lack of confidence, learning disabilities and health concerns volunteers for the garden team were

less well suited to one-to-one mentoring roles, but volunteered for the more hands-on activities, identifying the importance of flexible roles in engagement and enjoyment (Miller 2015).

Motivations for participating in the Family Growing Project

The mentors identified a range of shared aims and values including outreach to poorer families and vulnerable people who need help, providing education, providing healthy food and supporting a self-sustaining lifestyle with connections to wider environmental motivations.

‘I think it’s a good project, I think this is the future, environmentally, self-help and everything. I mean people have forgotten how to do it you see.....I just thought I could do it...I’ve been growing vegetables since I was 20, and I’m 71 and I’m still learning’ [Albert].

‘Why? Because I enjoy gardening, I thought I could teach other people a little bit, and help them.....if I can teach the parents and the parents will know what to plant, will know what to eat, then they give it to the kids, then hopefully the kids will pick it up and they’ll do it as well, and it will make them healthier’ [Terry].

Helen, a regular volunteer at the farm also identifies that the community garden was not having enough outreach into the local community and one-off training courses were not giving people the skills they needed to grow their own food:

‘I had a bit of a feeling that what we were doing here on the farm wasn’t really getting into the community, and so when the opportunity came up I thought well it’s a good way of actually getting people who live in the local community to do their own growing basically’ [Helen].

The garden team described more how the project helped them get out of the flat, their enjoyment of gardening activities and their happiness to help out the staff. The different motivations of Arthur and Tony have already been featured. Connor and Simon also identified why they helped the FGP:

‘I like being outdoors, I am not one that’ll sit and stare in a room like this for instance, day in day out, it would just drive me crazy, because I am unemployed as

well, it is giving me something to do' [Connor, who has depression and was unemployed before finding a full time job in 2015].

"I'd come every-day of the week but I can't because it's shut..... It helps me a lot, gardening, a lot' [Simon from Marfleet, who has severe learning difficulties and who put in over 260 hours to the project to end of 2015].

Figure 7.2) Mentors working with families and the garden team



The families identified they became involved for a wide range of reasons including involving their children in growing food, adding fresh fruit and vegetables into diets, and because people enjoyed gardening and wanted to learn more (Bhatti et al 2009, Davis et al 2015, Miller 2015). The potential to save money also emerged as a motivation (Buckingham 2005). These reasons are quantified in Table 7.3 below and are explained in more detail in the following text.

Table 7.3) Motivation for families' involvement in the FGP

Family	1) Kids involved	2) Fresh fruit and veg to diet	3) Health and Well-being	4) Financial	5) Self sufficiency	6) Fun/ enjoyment
Will	Yes – strong	Yes				Yes
Steve	Yes – strong	Yes			Yes	Yes

Justin	Yes	Yes			Yes	Yes
Sarah	Yes – strong	Yes		Yes (needs)		Yes
Sonia	Yes	Yes				Yes
Barbara	Yes – strong	Yes	Yes	Yes		Yes
Kirsty	Yes – strong					
Emma	Yes – strong	Yes		Yes		
Rachel	Yes	Yes		Yes		Yes
Alison	Yes – strong	Yes		Yes (needs)		
Total	10	9	1	5	2	7

All the families were motivated by involving and educating their children or grandchildren in some way, although this was stronger in some families. Families wanted to involve children for a range of reasons including showing children where food came from, adding fresh fruit and vegetables to meals (through both improving taste, growing what children liked, and ownership in terms of planting seeds and seeing them grow and eating them) and to have fun through a shared activity. Some of the reasons are illustrated by the following quote from Sarah: ‘To show the children where food comes from, it doesn’t just come in a packet.....to save a little bit of money, if I could. That hasn’t really worked this year, but I think it could the longer we do it....And just something to do’. One family became involved after their children joined the GP growing activities through school.

‘My 13 year old daughter goes to the gardening club, she’s been going for a while, and then got to know Mark, and then he was just talking about doing the gardening project.. I can garden, but doing veggies and stuff, I like flowers, I can’t really do veggies or anything, it’s all new to me. And then I’ve got a 19 year old,, she is a chef at David Lloyd leisure, and she likes all the herbs you can grow in your garden.....I heard it from them’. [Emma]

A number of families had tried to grow their own before, but with limited success and wanted support from skilled and experienced gardeners, which they were not able to access before the GP project.

‘We tried growing something every year, whether its tomatoes, but failed quite miserably, so we thought a bit of help would be quite nice.... Doing it together, I don’t know I wouldn’t say I particularly enjoy it, I don’t get excited about it, the

kids get something out of it, excited when they saw the strawberry plant and there's loads of strawberries on it.....' [Kirsty]

Some families also identified an aim to save money through growing their own fruit and vegetables instead of buying, and a theme of improving self-sufficiency also developed. Column 4 in Table 7.3 above identifies which families had financial motivations. Two families saw growing their own food as a potential way to become more resilient against financial hardship, having used foodbanks and wanting to add fruit and vegetables to diets.

'To learn, I want to learn how to grow things to the best I can, and get tips on how to grow to get the best out of my allotment, nobody knows everything do they.Fresher food, economics – it's cheaper to grow your own, and the exercise. Getting the children involved in growing their own food as well – the grandchildren – show them where the food comes from'. [Alison]

'It's something I've wanted to do for a long time. I moved into this house a year ago, and this is going to be, provided the council don't pull it down, the family home for many, many, many years. It's the first chance I've had to know I have got the facilities that I'm not moving on to actually set this up. I've always been interested in self-sufficiency and prepping and to be a bit more independent'. [Justin]

A number of people mentioned health and well-being benefits in their interviews when discussing benefits, but this was not identified as an initial motivation apart from in terms of increasing exercise. Barbara raised specific health issues in terms of needing raised beds and support due to a physical disability in order to grow more fruit and vegetables.

Project delivery arrangements

Eight families had their own gardens and two of the families were given community allotment plots which were close to their houses. Growing areas were prepared with the help of the garden team including building raised beds which is particularly effective for families with physical challenges to manage their gardens:

'really good, because with them putting my beds in, with my health issues, I could still do my veg.....if there hadn't have been this scheme, I wouldn't have been able to do what I've done'. [Barbara - a grandmother with physical disabilities].

Families were visited and individual growing plans developed. The families were supplied with seeds, compost and resources. This was particularly helpful for four families on low incomes in particular (Alison, Kirsty, Sarah and Sonia) who might have not been able to get involved in the project otherwise.

Volunteer mentors were matched with families and carried out regular visits on a monthly basis. However, both staff members Kate and Mark also provided mentoring support to families due to a range of issues including a shortage of volunteers in relation to the amount of support required, working with families with complex needs and to make up for cancelled or missed appointments. For instance, two volunteer mentors dropped out due to illness, although one returned later in the project. In addition, three families were less reliable than others, sometimes cancelling appointments with little or no notice which did affect the motivation of volunteers and requiring staff to intervene. Some of the reasons why staff intervened in support to families are explained by Kate below:

‘I’m currently working on my own with one of the families, because one of our mentors [Nancy] hasn’t been very well. But that is quite challenging, I’ve given her [Sonia] additional sessions because she suffers from fatigue and her health and tiredness levels are up and down and she’s a single mum, and think she just has difficulty coping sometimes... I’m getting from her she’s enjoying being part of the project, its making her feel good, but I’ve been a bit more flexible with her, giving her extra sessions, if she’s not feeling very well she’ll cancel and we’ll do it when you’re feeling better’. [Kate]

The FGP was also integrated with other UA activities including the Seed Swap and family activities at the community garden, where families could access more materials, advice and also link up with other families.

Outcomes from the Family Growing Project

Nine of the families strongly voiced benefits from the Family Growing project. All 10 families had stayed involved with growing activities regularly involving 28 people including 15 children, although one of the families dropped away towards the end and I was unable to interview them. Compared to the community garden and volunteering activities, there was outreach to different members of the community and particularly women and children (Buckingham 2005).

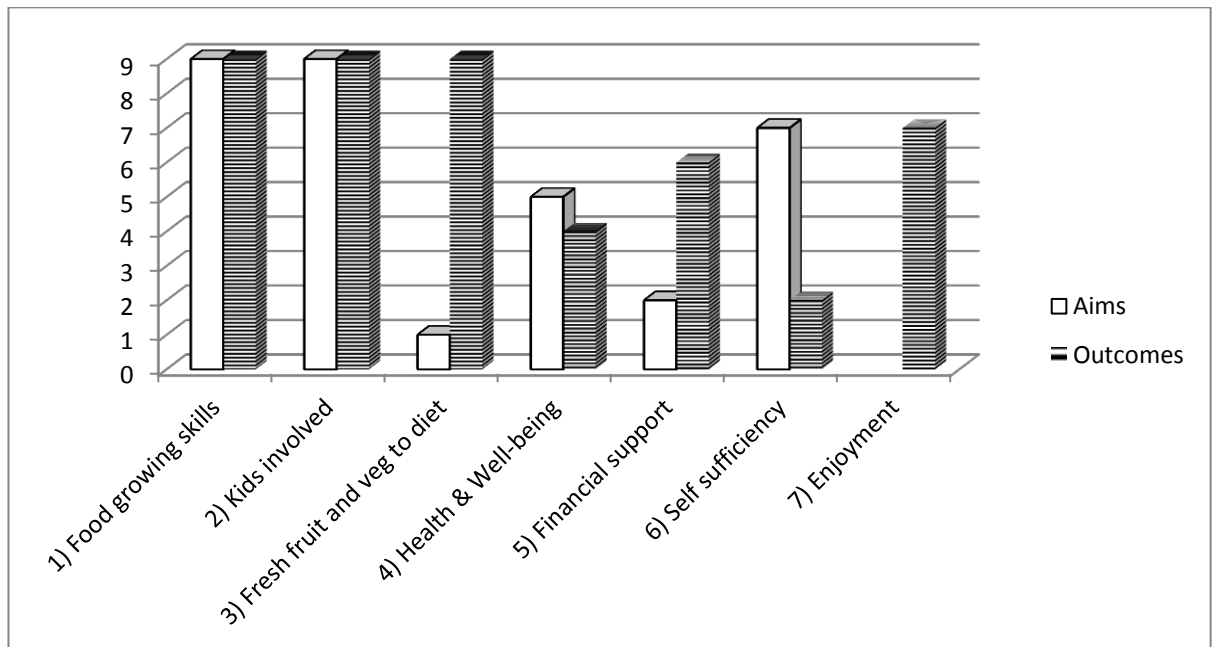
Respondents identified that beneficial outcomes included enjoyment of gardening, educating children, growing fresh fruit and vegetables, improving health and well-being, and easing financial hardship and improving self-reliance in line with research into the benefits of UA activities (Buckingham 2005, Kirwan et al 2013, Miller 2015). There are also wider benefits such as improving social cohesion and involving people in the wider local food growing movement (Andree et al 2015, Purcell and Tyman 2015). Some of these benefits were not anticipated by families when they started the project. Table 7.4 summarises the outcomes for families and Figure 7.3 matches the outcomes to initial expectations, before each theme is explored in more detail below with quotes from respondents.

Table 7.4) FGP outcomes described by the families

Family	No. (kids)	Skills	Involve Kids	Fresh fruit and veg	Health	Finance	Self - sufficiency	Fun
Will	4 (2)	Yes	Yes	Yes				Yes
Steve	3 (1)	Yes	Yes - strong	Yes			Yes	Yes
Justin	2 (1)	Yes	Yes	Yes		<i>Future years</i>	Yes	Yes
Sarah	3 (2)	Yes	Yes – strong	Yes	Yes	<i>Yes (needs) – next year</i>		Yes
Sonia	2 (1)	Yes	Yes	Yes	Yes	Yes (needs)		Yes
Barbara	4 (2)	Yes	Yes – strong	Yes	Yes	Yes		Yes
Kirsty	3 (2)							
Emma	3 (2)	Yes	Yes – strong	Yes		Yes		
Rachel	2 (1)	Yes	Yes	Yes		Yes		Yes
Alison	3 (2)	Yes	Yes – strong	Yes	Yes	Yes (needs)		
Total	28 (15)		9	9	4	6	2	7

Figure 7.3 below charts the outcomes against aims for the 9 families interviewed at the end of the FGP. All nine families interviewed said the project met their initial expectations. Nut there were also unanticipated outcomes: three families experienced health and well-being benefits and one family experienced financial benefits that they did not expect.

Figure 7.3) FGP: Families initial expectations compared to outcomes



Families, mentors and staff all identified how practical hands-on support and advice in the gardens really benefitted the families to grow their own food. This resonates with a range of findings into UA activities that participants with limited skills and resources need help to begin growing their own food (Baker 2005, Crane et al 2013, Purcell and Tyman 2015):

Sarah: 'I've always wanted to grow my own fruit and veg, but I kill things really quick!'

Interviewer: 'So you've tried growing things before?'

Sarah: 'I've tried before. I've tried tomatoes and I've tried peppers before, but they never work... so I thought if I've got someone to help to help me and show me where I'm going wrong, and its worked! I've had loads'.

By the end of the project, each of the families said they had successfully grown fruit and vegetables. The quote below from Sarah is one of the many quotes linking the success of growing fruit and vegetables to involving children in growing activities and improving their diets and nutrition (Buckingham 2005, Davis et al 2015).

Sarah: 'Mini sweetcorn which started as a little plant like that and is now over 6 feet tall, and they kids would just go out and pick them and take all the bits off and eat 'em – and tomatoes, because one of my daughters is just mad on tomatoes and will eat them all day. So when I said they're out in the garden you can go and go pick them she thought that was great, she takes them in her packed lunch everyday now'.

Interviewer: 'Has the kids' nutrition improved as a result of the project?'

Sarah: 'Oh yes, yes definitely. The kids like to eat something they've grown – they even eat radishes, which they hated because they were really peppery, but they'd grown it so had they had to try it and they really enjoyed trying it so they're eating different things. So I'll try and think of more things they haven't tried before, and if we grow it, they'll try it'.

All nine families said they successfully involved children. Children learned where food comes and ate fresh fruit and vegetables. 15 children could be said to have been actively involved in the project. The quotes above and below from Sarah and the quote below from Barbara provide examples of some of the benefits and are line with findings of Davis et al (2015), Mason and Montalto (2015) and Ampuero et al (2015) on the importance of involving children to achieve health benefits but also in terms of engagement in UA activities.

'Getting the kids involved, they have absolutely loved it – half the time it's just getting really dirty but they're quite excited, and they have loved going to the farm as well' [Sarah].

'and when you're actually planting up the kids love it..... they like to help to put it out, and they know that you don't just buy a packet – that's where it grows, so they enjoy it' [Barbara].

A strong sense of enjoying the project came from eight of the families interviewed, including enjoyment of gardening, giving food away and also connecting with good memories from the past (Bhatti et al 2009), reinforcing the importance of enjoying gardening as a platform for involvement in a positive project, but also fun and enjoyment as an important aspect of place-making. Enjoyment and the importance of memories are underlined in the quotes from Steve and Justin below.

Steve: 'And for fun and sharing: 'we think ... shall we pick them now? We've got a bag full of spuds, we've got a bag full of carrots I just think it's funny, because we go eat it and we give it away, it's funny that we can do that'

Justin: 'I remember picking bags full of tomatoes every year'

Interviewer: 'Did that stay with you?'

Justin: 'Definitely, I remember getting tomato plants when I was James' age or a little younger, and I had my own little greenhouse thing attached to the side of the shed and used to have two or three plants through the year – nothing major, but it got me the bug'.

Four of the families identified health and well-being benefits from the FGP ranging from reducing pain, reducing periods of feeling depressed, to dealing with more serious mental health challenges (Ferris et al 2001, Bhatti et al 2009, Miller 2015). Barbara has a disability and identifies how gardening helps her to forget about pain. Health and wellbeing had not been identified by the following two families as motivations but came out as a key benefit of the project at the end:

'It does, all my problems are joints, but you can sometimes just be in the garden and tottering about doing little jobs and it passes like that, but I've really, really enjoyed having more space to grow, I've really liked that' [Barbara].

'Yes, it's given me upliftment and given me a sense of achievement as well...it's really – it's just amazing – it is an amazing experience and that is the top thing that it's done for me. When you're low, and I do get really low, you're like, and to see this tiny seed grow – then you think, I can't be all bad' [Sonia].

This latter quote from Sonia strongly resonates with the findings from Bellows et al (2003) on how pride in nurturing a garden can lead to improved mental health outcomes. However, health and well-being benefits were not as prominent from the FGP as from the community garden indicating that the volunteers benefitted from longer term engagement and broader social contact (Ferris et al 2001).

Saving money was also identified as an outcome by six of the FGP families, including one who did not anticipate it as a benefit. However, interviews with staff and families suggest that saving money would not have been possible without the resource input from the

project, such as purchasing compost, seeds and providing raised beds and tools. Two families (Sonia and Alison) who were beginning to see benefits could be said to have significant financial issues and had used foodbanks at some stage. The following two quotes are also from Alison, a single parent, at different stages of the project. Alison cares for her autistic son, has significant financial challenges including having to use foodbanks at times, and used the project to help provide nutritious food to her son's diet. These quotations identify how the FGP enabled some of the families connect social and economic benefits:

Alison (half-way into the project): 'I have had support to get started off and that is good. Because my budget is zero, I wouldn't have managed without the fact that the allotment is free, and I was given seeds, otherwise there would have been nothing.....'

Interviewer: 'Have you used food banks?'

Alison: 'Yes, we quite regularly use a food bank. [Son], he gets benefits but a lot of his benefits are paid out towards his care, towards his care package. I'm struggling to keep a car on the road. It's not like we are in poverty, but to keep the car on the road that is absolutely necessary for [Son's] welfare, we have to make cutbacks, and the only place we can make cutbacks is on food.....tonight we're having macaroni cheese because we can't afford any meat today'.

Alison (at the end of the project): 'I've grown a lot of tomatoes, which helps his nutrition because I can hide vegetables in tomato soup – and tomatoes are expensive to buy to make your own tomato soup to do that with.. so for him his nutrition has improved because I can grow vegetables, and I can grow tomatoes'.

In the same interview at the end of the project Alison also identifies growing food can be financially viable.

'It's also been economically viable because I've spent £20 and got quite a lot of produce and that was my first year and I didn't even manage to do the whole plot – potatoes, pumpkins, beans, peas, onions, carrots, and that's just from half the plot'.

Two other families, including one with financial problems [Sarah] saw scope to save money in future years.

Interviewer: 'Have you saved any money?'

Sarah: 'That hasn't really worked this year, but I think it could the longer we do it'.

Improving self-sufficiency was identified as a separate point to financial savings by two of the FGP families interviewed and three of the volunteer mentors. The respondents also identified a link from self-sufficiency to environmental sustainability in line with the broader aims of CLS projects, and their views are discussed further in Chapter 10. Two volunteers and one family also connected self-sufficiency to potential for developing a wider food growing movement with connections to the 'Dig for Victory' campaign during World War Two.

'Yes, yes I do, we've got a plot and we're growing our own, it costs a lot of money don't get me wrong, yes I think so, a bit of self-sufficient'. [Steve]

'I wish more people, even if it was a small patch, would do their own, something daft, It get the kids a bit more involved and it's something that's been neglected, obviously in the war – I mean grow to victory, everyone had a patch, and now there's none of that'. [Justin]

'I think it's a good project, I think this is the future, environmentally, self-help and everything. I mean people have forgotten how to do it you see..... I mean it was dig for Britain during the war'. [Albert – volunteer mentor]

In addition to the anticipated benefits, there were also some wider community-level impacts and connections that came through the interviews, supporting the role of activities in developing social capital (Franklin and Marsden 2015). This includes developing strong bonds between families and mentors, and families giving away produce to their wider families and communities (Miller 2015). For instance, one family described sharing their produce:

'my dad gets a lot, he's got some strawberries and a lot of the neighbours have all the spinach and lettuce, because that we do really well at, so that tends to go round to the neighbours because there's a lot of older people as well'. [Steve]

Due to the success of the FGP, Probe also developed a smaller scale FGP and employed a member of staff on a part-time basis. However, this project was not successful. Four families were identified and initial visits took place but no further work was carried out,

much to the frustration of the four families involved. Two of the families (Mandy and Gloria) became volunteers at the Community Garden whereas two families did not have further contact with the GP project. The resources required to implement the FGP helps underline why the smaller growing project which was started later in 2015 was not successful. FGP had two dedicated, skilled and experienced members of staff (one full time equivalent (FTE) and one x 0.6 FTE) and was supported by a number of volunteers and a budget to purchase materials. Team-working between staff helped to run the project through any difficult periods, such as during staff or volunteer illness. By contrast the smaller project had one part time member of staff who had less experience of food growing and who had less access to volunteer resources or equipment – this issue is explored more in chapter 9 exploring project governance.

Family Growing Project: Long-term sustainability

The FGP project indicated beneficial social and economic outcomes from specific project support for families to become involved in UA activities (Baker 2004, Crane et al 2013, Purcell and Tyman 2015). The participants also discussed links to wider environmental outcomes which are discussed further in chapter 10.

Project staff, volunteers and participants identified a range of potential opportunities for taking the project further including continuing support to existing families, the current families coaching new families, extending support to refugees newly arrived in the city (a training course provided by the GP project to refugees is analysed later), and also working with the four families that did not get adequate support from the smaller growing project.

All nine families interviewed identified they would try and continue growing, although two families could find it difficult: Steve will be working away from home for a long period. Alison found it difficult to sustain her activities due to a range of other personal commitments and a lack of water supply at their allotment. Seven families had clear plans and felt more confident to go it more on their own due to the support and equipment they have received, with one of the families feeling confident to take an allotment:

‘It’s given me a lot more incentive, ‘I definitely wouldn’t have got an allotment without them.... so in five years I want my shed, my greenhouse, where I want them, my beds laid, my pathways all laid down, compost bins all done,’. [Justin]

Six of the seven families who had clear plans wanted some kind of continuing informal support from the staff or through the mentors. Staff member Kate had identified a significant note of caution on whether the volunteer mentors would find it easy to continue to provide support in the absence of committed resources from the GP project.

‘I think they’d [the volunteers] be able to continue the food growing [at the community garden] more than the mentoring, I don’t do it but I know Mark does absolutely tonnes of running around, and reorganising appointments for the mentors’

In addition, to hands on project organisation, the failure of the smaller family growing project also indicates that some level of food growing skills and experience could be required to support outreach work with families. However, the GP project partners were not able to secure any funding to continue the project after 2015. Without specific funding, staff found it very difficult to provide any further support – Kate left Probe to work on projects which took her outside east Hull. Mark stayed with EMS in east Hull but was not able to work on unfunded projects.

7.3) Vignette 3 - The Hull Harvest Festival: contributing to a city-wide food event

The Festival is included as a vignette as it provides an example of where the GP project and volunteers contributed to a city wide food event, building different forms of social capital with other projects and with the local council, and potentially signalling the development of a local food network which could provide a platform for long-term sustainability (Milbourne 2012, Andree et al 2015, Franklin and Marsden 2015).

The Festival had a range of social and political aims including developing Hull as a an alternative local food network, bringing different growing projects together, informing the public of the different growing activities and healthy eating, and also feeding vulnerable people including the homeless. Therefore the Festival balanced a range of macro and micro motivations, including having more explicit connections to studies of ‘political’ gardening than other UA activities (Adams et al 2015, Certoma and Tornaghi 2015).

The first Hull Harvest Festival was held in central Hull in October 2015. It was estimated that over 60 people volunteered to help the event and over 500 people came to participate. The organisation of the event was led by UA staff members from Green

Prosperity working in partnership with other local organisations including Timebank Hull and East Yorkshire (Timebank). Mark, Kate and Brendan worked on behalf of the GP project, but also committed a range of hours as volunteers. The Festival organisers had a wide range of connections across the city and brought in support from other individuals and organisations, including local churches working with the homeless and marginalised groups, voluntary organisations, staff from public sector organisations, and gardeners and food growing projects.

From the GP project, three staff and eleven volunteers contributed 110 hours to the Festival. The GP volunteers contributed to the event in a range of ways including helping grow food in their own homes and in the community garden, making demonstration mobile planters, making jams and chutneys. On the day GP volunteers helped set up the event, prepare the fruit and vegetables, and give gardening advice to visitors, with one GP volunteer joining the team of four chefs. A photograph of volunteers at the community garden with some of the food grown for the festival is shown in Figure 7.4 below. The GP project contributed an important aspect of the project, as the only organisation bringing volunteers from east Hull.

Figure 7.4) GP volunteers with food produced at the community garden



A mix of macro and micro motivations

A key motivation was showcasing the range of food grown in the city by different groups and how healthy food could taste good. Developing collaborative work between local UA projects was also a strong motivation for the Festival building on community assets to

show self-reliance, in line with a focus on building social capital identified by Franklin and Marsden (2015) and a focus on progressive localism outlined by Featherstone et al (2012). This is highlighted in the following quote:

'I think that message of we can do a lot ourselves, if we can take some ownership back, of the skills that we have, as individuals but collectively as a city,.....but it's recognising what you can offer. You might have always known that you had those skills, but actually putting it into practice...so the whole concept as a thing to grow from to learn from is a really powerful thing' [GP volunteer Linda, who later was employed by Probe and EHCF in summer 2016 to continue working on the community garden].

People also volunteered to help vulnerable people. The following quotes are from Mandy a GP volunteer who became very involved in the Festival. Mandy had used a foodbank at St Mary's Church before and wanted to donate what she had grown to help the homeless and was also motivated by excess food going to St Mary's Church, suggesting how the Festival had helped them to give back to their community.

'I did grow potatoes, which I donated to the Festival. I grew carrots, they were only small but they were good, they were my carrots, and I were chuffed – so I donated them' [Mandy].

'Yes, what was left at the end anyway got donated to one foodbank... when we found ourselves going to the foodbank, we were pointed in the direction of St Mary's church – what I like about that is, you don't need to turn up with anything, they don't want to know why you were there, it saves you the embarrassment of having to explain to them why you're in that situation.....a lot of pensioners there, and you also had people that were like myself, low income or no income and were wanting something' [Mandy].

A number of GP volunteers also identified how it helped them get out of the flat, especially on the weekend which can be a lonely time for people without families.

Participants of the Festival did not present the event as overtly political. In the interviews Mark from the GP project was the only respondent who made a directly mentioned a political party or political figure:

‘I got involved because through my job role and my ... I see a lot of good things going with food, but quite often they are in isolation, and bringing lots of different people, growers, volunteers together, on something collaborative, and not because they are going to get paid or ticks a box on their funding form, or because David Cameron thinks it might be a good idea, but because they have a genuine passion for it and want to improve the communities, and it’s good to be involved in projects like that that come from the heart’ [Mark, GP staff member and Festival volunteer].

However, Kate from the GP project, managed to frame Festival as being against a policy direction, but in a less adversarial way that brought together motivations of different volunteers without excluding people by describing it as an *‘antidote to austerity’*. This shows how the Festival was able to balance wider political motivations for some people with local motivations around enjoying growing food and giving advice for others for others (Adams et al 2015, Follmann and Viehoff 2015). For instance, some of the GP volunteers including Mandy and Chris were more political in describing their motivations compared to other volunteers including Derrick, Tim, Arthur and Tony who might be put off by overtly political aims. In a separate conversation, Mark described how project staff usually avoided any ‘political’ discussions with volunteers, including potential criticisms of local and central government, commenting how political conversations were often in danger of excluding some volunteers, in line with Corcoran and Kettle’s (2015) findings relating to allotments in Northern Ireland, and Cloke et al (2016) study into volunteering at the Trussell Trust. For instance, volunteers could become polarised discussing issues including immigration and terrorism.

Outcomes of the Festival

As a one off event at the time, it was difficult to evaluate any outcomes for vulnerable people. However, there was a wide range of positive feedback on short term outputs of the event, including a strong sense of achievement in pulling the event together and enjoyment of working together, although there were many stressful moments.

Respondents identified a range of key achievements in line with the aims of Festival, including the estimated 500 meals distributed to a wide range of people and the information on growing and eating healthy food:

‘it was an eye opener on how many people actually came to be fed, and it wasn’t just the homeless, it wasn’t just the ones that have a hard time that have [drug]

issues, it was people who were actually interested in what they could learn' [Mandy GP volunteer].

Many of the benefits described related to the process of organising the event, including the inputs from a wide range of different volunteers working together and building connections to other projects, building social capital (Franklin and Marsden 2015):

'We attended the workshop at the East Hull Community Farm building trolleys with the idea of getting them planted up with a range of vegetables to take to the event in town. Us and the group of young people from Green Life really enjoyed it and had a good day. Some really engaged with the artwork and the farm' [Project leader from another UA activity in Hull commenting on visiting the GP project].

In addition there were concrete examples of where joint working benefitted social projects, including one person being involved in Feastival and making contact with an organisation working to help refugees, and then volunteering their time to help deliver donations to refugees in Calais (Larner and Craig 2005, Milligan and Fyfe 2005).

Feastival: Long-term sustainability

The evaluation of the Feastival identified a wide range of constructive criticism which was reported back to the Feastival organisers. Many stakeholders identified a need to better communicate the aims of the Feastival. Some stakeholders also identified a need to focus more on engaging vulnerable people including young people, homeless, refugees and BME populations. For instance, it was identified that the registration process acted as a barrier to some people. A range of feedback was also provided for how organisation could be smoother.

A particular focus of discussions was the relationship with Hull City Council (HCC), and the potential to obtain more support (Franklin and Marsden 2015). HCC provided some essential support for the 2015 event including, use of HCC premises, waiving the fee for the use of space, and access to toilets. Respondents identified a need to think through what support is required from HCC in the future including to help overcome issues relating to facilities such as waste, water and toilets and potentially cooking facilities. A focus group also considered applying to HCC for funding. It was outlined that although there is no specific support to local food growing, Feastival is in line with a range of HCC's strategies and projects, including public health and the City of Culture 2017. However,

respondents were also wary of becoming seeing as part of HCC and losing independence. Festival organisers expressed pride that the event was put together with limited financial resources through a social movement rather than a largescale funded event. Respondents identified negative consequences about applying for funding, from both HCC and more generally, such as needing to meet funding requirements instead of it being a bottom - up organic event.

There was strong momentum for a Festival event to continue and another event did take place in 2016. Timebank took on responsibility for continuing the Festival and established the Hull Grower's Network, employing Kate from the GP project as a part-time coordinator. This development indicates the potential for a continued development of a local food network in Hull (Andree et al 2015). Stakeholders reported that the 2016 Festival was successful, although the number of registered participants reduced to less than 300 partly due to HCC providing a location at the 'last minute' due to extensive works in the city centre for the City of Culture.

However, the GP project finishing did also have consequences, indicating the need for an ongoing project to continue the involvement of more marginalised volunteers (Featherstone et al 2012). None of the GP volunteers were involved on the day. The volunteers at the community garden did contribute a range of produce and were connected to the Festival through Kate, and also Linda a former volunteer, who was employed at the farm to support the volunteers from summer 2016. Linda identified she was employed too late to be able to organise the GP volunteers involvement in 2016, but would focus on this in 2017.

7.4) Vignette 4 - Opportunities: food growing and refugees

This training course is included as a vignette to explore the potential for UA and food growing to help marginalised people develop a sense of place as part of sustainable place-making, with the example of newly arrived refugees (Jean 2015). In addition to Festival, it is also another example of the benefits of linking social capital between projects, with the GP project working together effectively with HCC staff and the Refugee Council (Franklin and Marsden 2015). However, it is also an example of where lack of continuation (longer term sustainability) affected the potential of the project to make lasting impacts on vulnerable people's lives (White and Stirling 2013), similar the findings of the FGP.

The training course was a short course run in the summer of 2015 at the East Hull Community Farm (EHCF) including the community garden, and was tailored to the refugees and introduction to food growing in the UK. Staff from the GP project and HCC Adult Education had worked together to develop and run a series of courses titled: *'Men Behaving Dadly'*, targeting fathers and their children from disadvantaged families in east Hull. HCC Adult Education had a strong aim to improve relationships between fathers and children and worked with the GP project to use the community farm and learning about growing food and cooking. GP and HCC Adult Education developed a short course for the summer of 2015 targeting families in Southcoates East and Longhill but initially there was little local demand. However, a staff member from the Refugee Council (RC), contacted HCC Adult Education and facilitated attendance from five refugee dads and their children four of the families were from Somalia and one from the Democratic Republic of Congo (DRC).

Outcomes from the course

I interviewed the fathers and staff members during the course and then in a focus group and interview after the course was finished. The RC provided translators during the course and in the interview and focus groups. The responses from participants suggested that the immediate aims of the course, getting the fathers and children to work together in a fun and constructive environment, were achieved. In addition, staff and participants also reported developing practical skills such as English language skills and beginning to learn about food growing in the UK. Supporting language development also helps develop effective agency, which could also be important in the context of refugees experiencing difficulties accessing English language classes in Hull (Campion et al 2010).

'I've got a problem with the language, I didn't learn the language. Language was one of the things that was really useful.....they gave me a sheet of the animals, and it was translated to my Somali language, to my mother tongue. So it was easy for me to read it and know this animal, so it was really useful for me' [Saado - Somali Refugee Dad].

'the children are still new, learning language it's still developing but slowly, going there, especially the things the kids were being taught, the different insects and identifying them and showing them the names, so there was the name and the

insect and that was really nice, and the children were ... happy about it' [Romelu - Congolese Refugee Dad].

The welcoming approach of the staff was really important for refugee families potentially coming from traumatic situations and adapting to life in a new country. The importance to refugees of their children also enjoying activities and concurs with Spicer's (2008) findings that refugee families were likely to shield their children from negative environments in new countries.

'I like the fact that the people who were working there, they were really helpful with kids, they were very friendly, and I like that. They were very welcoming and they said if you want to attend some more days you can come some other days if you are available. We love that as well - these are the two things I really liked..... It's nice for kids to see these animals as well, they don't get many opportunities to come and see them. I think they said we want to go there every-day because they love animals' [Baashi- Somali Refugee Dad].

'They [the children] were so happy. More happy than us. They loved it because in this country they look after the kids a lot. They love these things to be looked after as well' [Saado - Somali Refugee Dad].

The location of the training was also a very important factor in the success of the course from the dads' point of view. The community garden was an attractive location and EHCF also has a range of different animals which was important for the children.

'there were a lot of things that I was really happy with. I did see some animals that last time I saw was back in Africa, so it was really nice to see them here, I was really enjoying ... I saw a pig.... sheep' [Saado - Somali Refugee Dad].

'what really I like most was back at home in Africa we rear cattle, and that was kind of taking me down memory lane, and just seeing that alone is something that is wonderful to me because it was something that was like an everyday thing, so having to take care of cattle at home just took me back home' [Romelu – Congolese Refugee Dad].

The quote above identifies how food growing and the location of the training at EHCF brought back positive memories of lives in Africa. However, the dads also expressed a range of wider unanticipated outcomes including working with people from other cultures

and building social capital, with the quote below illustrating the importance of building connections with other refugees in line with Baker (2004) and Harris et al (2014).

‘[the] third [benefit] is the open space that the children could get time to go and be out together to play together with the children from the Somali communities, the way that the kids joined in with the other children and the way they interacted, just enjoying the fresh air and playing together, I also loved that’ [Romelu - Congolese Refugee Dad].

One of the dads in particular considered how food growing could help refugees show positive agency after many years of restrictions in refugee camp. One of the dads suggested that the reconnections to past lives in Africa was particularly important as the refugees could have spent many years in camps, away from traditional livelihoods. This enjoyable family reconnection and experience could also be important for their kids to understand more about their dads lives before being in a refugee camp.

‘Some of us don’t know about life outside the camp. It is a life where you have been given everything, whether it is small quantities, big quantities, whether it is enough, whether it is little, where you are given everything, so you lose so much in terms of realities of life, the nature of things, growing things and all that, so it will be very important because it brings people back to reality, like being shown on how to grow things and just tilling the land and doing interesting things’ [Romelu].

After the course, some of the dads were very keen to try and grow food at home, but identified there were challenges including practical knowledge of how things work in the UK, costs of buying equipment including manure and seeds, in line with studies identifying how new refugees find it difficult to navigate around new ways of doing things in different languages (Hadley et al 2010).

‘I would love to try, but we are still new and we don’t know how to do it. The things we need to use, where to buy it, these are the obstacles we’re facing now. Because we’re still new to the country we don’t know where to go to get these things, but we’d love to do it’ [Baashi- Somali Refugee Dad].

‘what I am interested ...would be doing a small farm in my backyard... so I’d want to grow onions, tomatoes, vegetables that we can farm, but also that will help the family as well’ [Romelu].

In addition, the refugees identified that they would need continued project support to enable them to continue growing, echoing the research of Baker (2004), Harris et al (2014) and Jean (2015) that involving refugees in food growing activities needs specific support to overcome the significant barriers which prevent the refugees from joining existing activities. These barriers included that the refugee dads felt a need to go as a group to an organised course or session, and requirements such as organising an interpreter. For instance, the dads did not feel comfortable to go to the farm on regular volunteer Wednesdays.

Baashi: 'If there was the opportunity, yes, if they are going to let us go – yeah'.

Interviewer: 'How would it work?'

Baashi: 'Like a course, if there was an interpreter that would be great, that would be really helpful. It's nice, we could do maybe sometimes ourselves but it's not going to be useful. But if we go first with an interpreter and the course, and the people who organise it, it would be really interesting for us and for the kids. And in a group, if we go as a group, that would be really interesting'.

Refugee food growing course: Long-term sustainability

However, the GP project was unable to provide any further support to the refugees. Mark, the training course organiser, identified that the refugees would have benefitted from being involved in a future family growing project enabling the refugees to grow fruit and vegetables and involving children. A stakeholder in Hull identified that hunger is a real issue for recent immigrants, reflecting findings that refugees can experience food insecurity through difficulties adapting to new countries and navigating the new food environment, with financial restrictions also an important factor (Wilson et al 2010, Hadley et al 2010). After one year refugees also become part of the mainstream DWP benefit system with potential consequences of benefit sanctions and periods of no income during benefit assessment processes.

There could have been the potential for building social capital with local volunteers, such as the families and volunteer mentors from the GP Family Growing Project. Research by Baker (2005) and Jean (2014) suggest there could be considerable scope for utilising refugees' skills in food production and income generation, with many refugees involved in food growing in their original countries. For instance, Nancy, a regular volunteer from east

Hull has identified the potential benefits of involving volunteers to both the project and to refugees:

‘we might be able to assimilate them better, [through involvement in the GP food growing project] they feel needed, they feel wanted ... and it will help ease tension, and it will be a really nice project to help our fellow man....These people we shouldn’t patronise by thinking that they’re helpless, they might be helpless now, but their knowledge..... Give them some wood, if they can have the bare bones, they won’t have to come here getting it, they will build it’.

Together the findings suggest that community food growing activities could provide a welcoming space for refugees to adapt to life and build new livelihoods, build social capital with other refugees and local communities, and contribute to their new communities including through being valued for their skills and experience in local food growing movements. This could be particularly important in Hull where studies have found that refugees experience more problems in adapting than in other cities due to a more recent history of welcoming refugees and fewer established institutions and services than in other cities (Campion et al 2010, Platts-Fowler and Robinson 2015). In addition, Hull has an increasing local food growing movement.

7.5) Increasing voice in democracy and tackling justice issues

Increasing voice in democracy is a potential benefit of involvement in UA activities identified strongly in studies focusing on North America (Staheli 2008, Purcell and Tyman 2015, Walker 2016), but less strongly in studies in the UK. The GP project did not focus on this as an explicit objective of its work. Only the Feastival activity was described in political terms but here there were tensions between being overtly political and also how to engage with HCC.

During the research, only two volunteers Nancy and Terry discussed experiences of trying to work with HCC. They both described negative experiences from trying to demand recognition from HCC for their volunteering work in sustainable place-making activities. For instance, Terry identified that:

‘Well the thing about the council, which they really annoy me, the council never completes a job, they don’t – they’ll get a bright idea for 6 months and then they’ll forget about it and hope volunteers do it’

Interviewer: ‘Do you have any examples?’

Terry: ‘Yes, there was two roundabouts which were turned into open spaces, and they tied up them for 6 months and they just hoped that volunteers would carry on, but nobody did’.

Nancy also identified frustration over lack of response to her efforts to convert wasteland in Marfleet to growing spaces for use by vulnerable people including refugees. Nancy was unable to secure land, with the land she had identified reportedly earmarked for economic development through the Green Port project, and no other alternatives were considered. Nancy strongly linked the lack of response from HCC to overall neglect towards improving the east of Hull as highlighted in this earlier quote:

‘Because I worked for the council, we were in the west part of Hull. And when I came here I could not understand the attitude of this west and east divide, and I now can. Because the council seems to lean all to West and the roads here are dreadful, they are a disgrace, and the council just don’t seem to care’.

Arthur described how HCC had blocked access to his allotment in Marfleet, which he had worked on for 27 years, after earmarking the area for Green Port development. Arthur gave up growing food after this, until becoming involved in the GP project. A health consequence of losing the allotment could have been a reduction in access to fresh fruit and vegetables during the time he was diagnosed with diabetes. Arthur was also affected by the closure of HCC’s College site in Southcoates East, which was the base for the Horticulture Course but which was then converted into a Siemens training facility. However, Arthur did not see any scope for lobbying HCC for change, preferring to focus on more involvement with the GP project as an alternative.

Graham’s mum described how HCC provided support after Graham had a stroke, but she wasn’t sure whether he had a personal budget she could use to pay to access UA or other environmental activities.

‘we had to have a stroke before they [HCC] came to me to ask me what they could do for them. He could have two days there, and one day here – because it would

cost them £60 – last time she came, I asked if he could do anything else, and I asked about doing another activity, but she said don't ask for anymore activities, because she said he might lose the ones he's got – she said, money is so tight ...might take it off him, the case days, so I didn't want to rock the boat'.

Rather than increasing voice in local democracy, the project highlighted a range of procedural justice issues where vulnerable volunteers felt unable to access transparent information and council services (Walker and Day 2012). Nancy initially felt empowered to try and contact HCC, whereas Arthur did not, but Nancy was then rebuffed. Graham's family were too concerned with the potential consequences of reduced access to community-level sustainability initiatives than to be able to claim a right to more. There was a lack of recognition from HCC of volunteers who wanted to try to improve their local area or to access community-level activities. However, on the positive side, Arthur's involvement as a volunteer could have developed more recognition from local DWP staff on the value of volunteering and difficulties in finding work and Arthur did not receive any further benefit sanctions (Snell et al 2015).

GP project staff also argued that the project could have provided a platform for increasing involvement in democracy in the long-term. Mark identified that the project tried to involve all volunteers in democratic decision making at a project level, such as through meetings to decide what fruit and vegetables would we planted, what would happen to the harvest, and if there were other projects they would like to visit and learn from. This could be the first time many of the volunteers would input into organisational decision making. However, identifying if there were lasting outcomes from this involvement would require a long-term approach.

7.6) Conclusion: promising but fragile outcomes of UA activities

The research demonstrates a wide range of benefits to project participants from involvement in UA activities and the essential role of civil society organisations in being able to engage vulnerable people (Baker 2004, Crane et al 2013, Purcell and Tyman 2015). At an individual level, volunteers experienced a wide range of social benefits, including relating to reduced isolation, improved mental health and well-being, and increasing skills and confidence (Ferris et al 2001, Buckingham 20015, Miller 2015). There was also evidence of economic and social benefits combining to improve resilience to benefit

sanctions, benefits changes and access to affordable nutritious food (Lambie-Mumford 2013, Perry et al 2014).

There is also evidence of community-level benefits relating to building communities, reducing isolation and improving health and well-being, which is also evident through the volunteers helping other people in their gardens on an informal basis then in a more formal way through the FGP (Ferris et al 2001, Franklin and Marsden 2015, Miller 2015).

The individual and community level benefits reinforce the connections between urban agriculture and place-making (Bhatti et al 2009, Turner et al 2011, Pitt 2014). The development of the community garden, school gardens and family gardens improved the local environment. In addition, to a wide range of health and wellbeing benefits there was also strong sense of activities providing fun and enjoyment as essential aspects of place-making (Sampson & Gifford 2010). Participants also voiced strong links between activities and increasing self-reliance, with community resilience considered a strong aspect of place-making (Parkhill et al 2015). The successful engagement of marginalised people including long term unemployed, people vulnerable to food poverty, and refugees also highlights important connections between tackling justice issues and place-making, which is not highlighted in the literature. For instance, the project provided a platform for increased recognition for some volunteers vulnerable to benefit sanctions.

The social benefits place UA within the framework of working towards social sustainability identified as an essential aspect of sustainable development by WECD (1987), Agyeman (2008), and Franklin and Marsden (2015). However, difficulties in engaging some hard-to-reach groups, including young people, meant that benefits from the project were not as widespread as possible, indicating restrictions to what a relatively small CSO project can achieve at a community-level.

The title of the chapter deliberately focused on improvements to marginalised people's lives as there were less clear wider environmental impacts, except for environmental improvements in the local area. Mason and Montalto (2015) identify there could be environmental impacts from increasing or protecting vegetation in community and private gardens although there is very little quantitative information on this. There could also be the potential for food growing to influence food consumption patterns such as increasing consumption of locally produced food (Andree et al 2015). The collaboration between food growing projects as part of the Feastival potentially signals the beginning of a local

food network in Hull (Andree et al 2015, van Garmeren 2015). However, the project was relatively small and short and any environmental benefits could be fragile.

All the vignettes identify it is essential to consider the long-term sustainability of the benefits at both individual and community levels, in line with a sustainable livelihoods approach (Scoones 1998). The refugees voiced a wide range of place-making benefits from involvement in the UA courses but there was no further contact after the short course. The positive impacts for volunteers may not last if the project finishes and volunteers experience a negative change in circumstances, including in relation to punitive welfare changes which are particularly relevant for vulnerable people (Crisp 2015, Snell et al 2015). For instance, Paul has a history of mental health issues which could also be exacerbated by a benefits reassessment. Arthur has been diagnosed with diabetes which needs ongoing health care and access to healthy nutritious food which he had difficulties obtaining before the project, especially after his allotment was closed.

The GP project worked to build social capital with other CSOs, HCC and donors to develop support and sustainability (White & Stirling 2013, Franklin and Marsden 2015). There is some evidence of ad-hoc support from HCC at an operational level, although there is also evidence of a lack recognition and responsiveness of the local authority to vulnerable people wanting to be involved community-level sustainability activities (Tornaghi 2014, Snell 2015). Long-term sustainability of the different GP activities, including both UA and community energy is considered in chapter 9. The next chapter considers the impacts of GP's community energy activities and also whether participants were able to benefit from being involved in a range of GPs activities.

Chapter 8) The impacts of community energy and other community-level sustainability-focused activities

In this chapter I explore the impacts of the GP project's community energy activities which focused on reducing energy usage and costs with a consequent reduction in participants' carbon footprints (Seyfang et al 2013). Reducing energy usage is a key focus of many community energy projects, and the use of smart meters is increasingly considered as a way to achieve these reductions (Hargreaves et al 2010, Parkhill et al 2015). Parkhill et al (2015) argues that reducing energy usage and costs is particularly relevant for people vulnerable to fuel poverty and can create positive impacts at both individual and community levels. A focus on reducing carbon footprints could also create a clearer pathway for environmental impacts compared to the project's UA activities (Rotmann and Mourik 2013, Seyfang et al 2013). However, the GP project did not include a focus on community renewable energy activities (Seyfang et al 2013, Maskalainen and Nolan 2015).

The chapter also explores the impact of the other GP activities and if residents benefitted from involvement in more than one activity. Providing a range of activities could increase the benefits at individual, community and global levels. However, research into community-level sustainability development usually focuses on the impacts from individual activities. This chapter will show how involvement in different sustainable place-making activities, including urban agriculture (UA) and community energy initiatives, can benefit vulnerable people. However, positive outcomes from civil society-led activities cannot be taken for granted and there needs to be a focus on effective internal project governance. Pseudonyms have been used for respondents to ensure anonymity.

8.1) Community energy: impacts on people vulnerable to fuel poverty

This section presents the research into the community energy activity in five parts. The first part describes the activities and how the project engaged with vulnerable people. Part two identifies overall savings information. Part three compares the approach to work with households with the potential for community-level approaches. Part four focuses on qualitative and quantitative information from semi-structured interviews conducted with 40 participants on why people participated, what difficulties were faced, and how people benefitted from project activities. Part five begins to consider long-term sustainability,

before overall analysis of the long-term sustainability of the GP project and its activities is discussed in more length in chapter 9.

Part 1) Developing activities to meet the needs of vulnerable people

The project focused on providing energy monitors as a way to work with local residents to reduce electricity usage, with energy monitors having similar functions to smart meters including identifying real-time energy usage and costs (Hargreaves et al 2010). The project identified that providing energy monitors could be a practical way of reducing vulnerability to fuel poverty, while at the same time reducing carbon emissions. However, the project prioritised messages on reducing costs in line with the findings of Seyfang et al (2013). Reducing costs was identified as particularly important due to low levels of income and vulnerability to fuel poverty in the areas as shown in the fuel poverty map in Chapter 2 – Figure 2.4.

EMS was responsible for the energy monitor activity and dedicated a full time member of staff to the activity once the GP project had started. The project aimed to install 500 energy monitors and used Owl Micro Monitors with a large display which was selected so residents can easily monitor energy usage, with the monitor showing real time increases when appliances are turned on. An image of the Owl Micro is shown in Figure 8.1 below.

Figure 8.1) Owl Micro Energy Monitor



Source: www.theowl.com

During the life of the project, GP responded to community needs and expanded its support to residents from supplying an energy monitor to also providing information on tariffs, a power-down plug, energy efficiency advice and information on other schemes and assistance such as the Warm Home Discount¹ and HCC operated schemes. The Energy Monitor staff member obtained an Energy Awareness National Vocational Qualification in 2015 to be able to increase the advice provided by the project.

The project initially used contacts from the waste recycling survey to target residents and 120 residents who completed the survey went on to have an energy monitor. The project also expanded methods of engagement to include leafletting, roadshows and attending community meetings. Project staff also worked with HCC housing wardens and with other HCC and NHS services based in the Freedom Centre to raise awareness.

The main focus of engagement was attracting residents through suggesting the project could reduce household bills (Seyfang et al 2013). Staff also identified engagement was most effective after the clocks go back in October and during winter. The project focused on residents of the target wards, but was flexible in working with residents of other areas.

In 2014, the project identified it faced considerable difficulties engaging with local residents and Longhill in particular, with 31% of EMS going to residents of Southcoates East and 20% going to residents of Longhill. Similarly to UA activities, the project staff identified that they faced particular difficulties in Longhill where there is a less active community centre and where staff felt there were less responsive HCC housing wardens in comparison to Southcoates East.

In 2015, the project increased efforts to target residents of the two wards and Longhill in particular with 68% of EMs being provided of the two wards (plus an additional 9% to Marfleet). By the end of 2015, the project installed 475 energy monitors to residents, with the majority (57%) to residents of Longhill and Southcoates East, and a further 14% to residents of neighbouring Marfleet. Table 8.1 below identifies the distribution of energy monitors by each ward, showing the concentration in the two wards of Southcoates East and Longhill.

¹ The Warm Home Discount (WHD) is a discount of £140 made available by some energy suppliers to some vulnerable people, but is not a transparent system (Walker and Day 2012, Snell et al 2015).

Table 8.1) Energy monitors distributed by ward

Wards	Energy Monitors	%
SCE	150	32%
Longhill	117	25%
Marfleet	65	14%
Hull East	66	14%
Hull North	22	5%
Hull West	34	7%
Other	12	3%
Unknown	9	2%
Total	475	

The project also tried to work with the ‘most vulnerable’ within the target wards. The project collected information on age, disability and employment and residents over 65, not-working, or Long Term Sick (LTS) or Disabled were identified as most vulnerable. 72% of residents in Longhill, 63% of residents in Southcoates East and 77% of residents in Marfleet that received energy monitors were classified as ‘most vulnerable’. Many people within this category could be eligible for the Warm Home Discount (WHD).

This also suggests that older people living at home were more likely to engage in the project. One couple – Mr and Mrs Mitchell, discussed their reasons for obtaining an EM – they were not financially poor but had retired and the husband required care after a stroke:

‘We saw about GP – a Green Fair at the Freedom Centre, there’s a display, and it said something like cut your bills, and now that we’re both retired obviously we’re looking at reducing our bills, because obviously we’re here all day, we weren’t here all day were we were out of work and you’ll notice that our heating bills and our electricity bills are considerably higher than when we weren’t at home, than when we were out all day, so we were actively wanting to reduce them’.

However, many people in fuel poverty may not be in GPs classification of 'most vulnerable' For instance low income high cost households, such as large families have been included in recent definitions of fuel poverty (Simcock et al 2016). GP staff and other stakeholders identify it is very difficult to specify who is in fuel poverty due to a range of factors. A key issue is that residents may not wish to identify themselves as in fuel poverty. Stigma of being described as living in poverty could be one issue (Saunders et al 2013, Reid et al 2015). In addition, the complexity of the definition of fuel poverty means people may not know they are in fuel poverty. For instance, the definition requires detailed information on personal finances, which many householders will not analyse themselves and could be reticent to share without outside organisations. (Hargreaves et al 2013b, Lorenc et al 2013). Energy efficiency of housing stock is also a key factor in fuel poverty and this information can be difficult to obtain, particularly for the resident². There is also no incentive for householders to identify themselves as being in fuel poverty as there is no clear mechanism to help people. Therefore the project may also have been reaching people in fuel poverty not identified as 'most vulnerable', by working with all residents of the two wards which have high levels of deprivation and also a large proportion of residents living in energy inefficient council housing.

Part 2) Helping vulnerable people save money

Through the household visits, the project found considerable scope for reducing costs through the use of the energy monitor to reduce usage, but also through helping people get better tariffs from suppliers and also making people aware of the Warm Home Discount (WHD). Information on savings was collected by the project and also through my M&E interviews with residents, based on estimates from householders. For savings from Tariff Changes estimates from householders were compared against information from price comparison websites which project staff recorded when visiting a house and where possible the project followed up with residents to check savings. Research by Hargreaves et al (2010), Hargreaves et al (2013b) and Lorenc et al (2013) identify it is very difficult to

² To obtain information on the energy efficiency of housing stock, the GP project tried to work with Warm Zone which collected information on energy efficiency (SAP ratings) in housing stock. Warm Zone is a registered charity but closely linked to the council and its role was to identify fuel poverty hotspots, collect information on energy efficiency of properties, and help residents access improvements. From 2013 to 2015 Warm Zone specifically focused on areas with high levels of council housing stock including Southcoates East and Longhill. Warm Zone shared information with the project on Longhill, but not on Southcoates East due to data protection issues.

obtain quantitative information on savings from energy usage indicating the potential value of this information.

Savings were identified from 72 residents, 50 identified by project staff and 22 by my follow-up research. We combined the two sources of data through inputting onto one database and discussing the figures collected. Where I corroborated savings information collected by the project through follow-up interviews, I found that the project staff had sometimes underreported savings. However, my research identified problems in relation to the savings identified for referrals to the WHD as the project was not able to follow-up whether all people had secured this discount from the suppliers. In one case I was able to identify a family that had successfully obtained a discount. But in other cases this would require further follow-up work in 2016, after the project finished. Peter, the EMS community energy officer had attempted to collect more savings information in 2016, but identified that once people had provided initial feedback on savings, residents were reluctant to give continuous feedback.

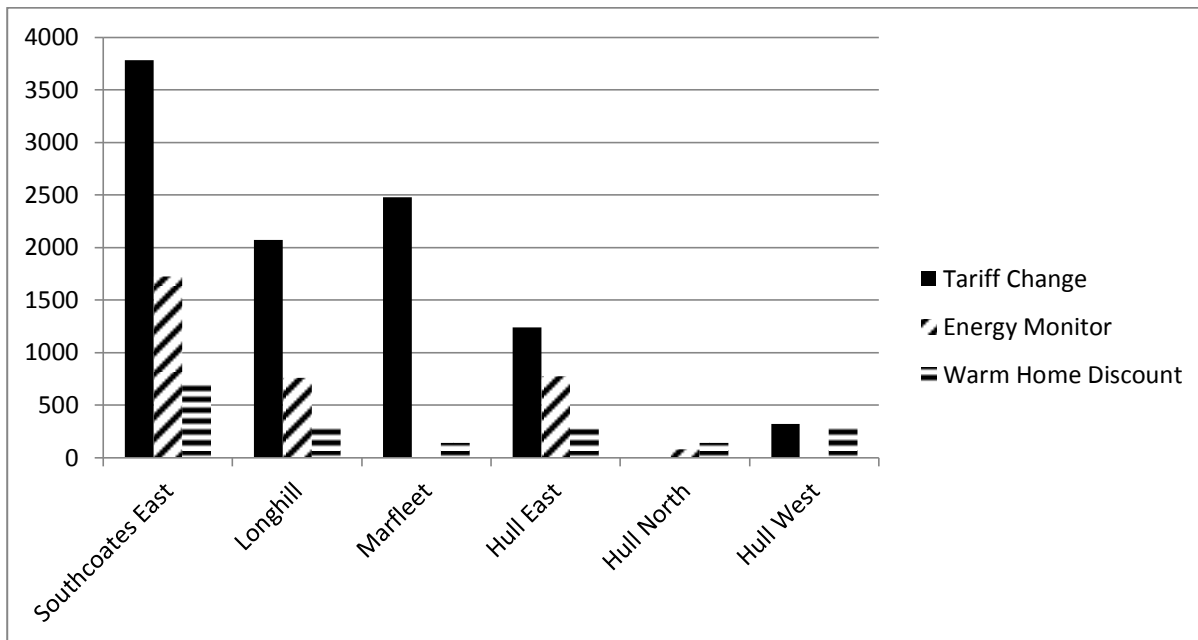
Savings are described as potential savings given the difficulties in verifying that residents saved money from the WHD. The total savings recorded by the project and through the research is equivalent to £15,042 per year across 72 households = average of £209 per household per year. £9,895 (66%) of savings were achieved through changing tariffs (TC) and payment methods. £3,331 (22%) were achieved through the use of energy monitors (EM) and 12% (£1,816) through referring people to the WHD (although as stated earlier the level of savings from WHD is estimated and is questionable). 27 households identified they had saved money from using an energy monitor ranging from £10 per year to £360 per year at an average of £123. Table 8.2 identifies the level of savings per ward and Figure 8.2 identifies the level of savings per location and by type.

Table 8.2) Community energy: potential savings by intervention and location

Area	Number identifying savings	Total Savings	Ave	TC	EM	WHD
Southcoates East	26	£ 6,209	£ 239	£ 3,786	£ 1,723	£ 700
Longhill	17	£ 3,107	£ 183	£ 2,071	£ 756	£ 280
Marfleet	12	£ 2,619	£ 218	£ 2,479	£ -	£ 140

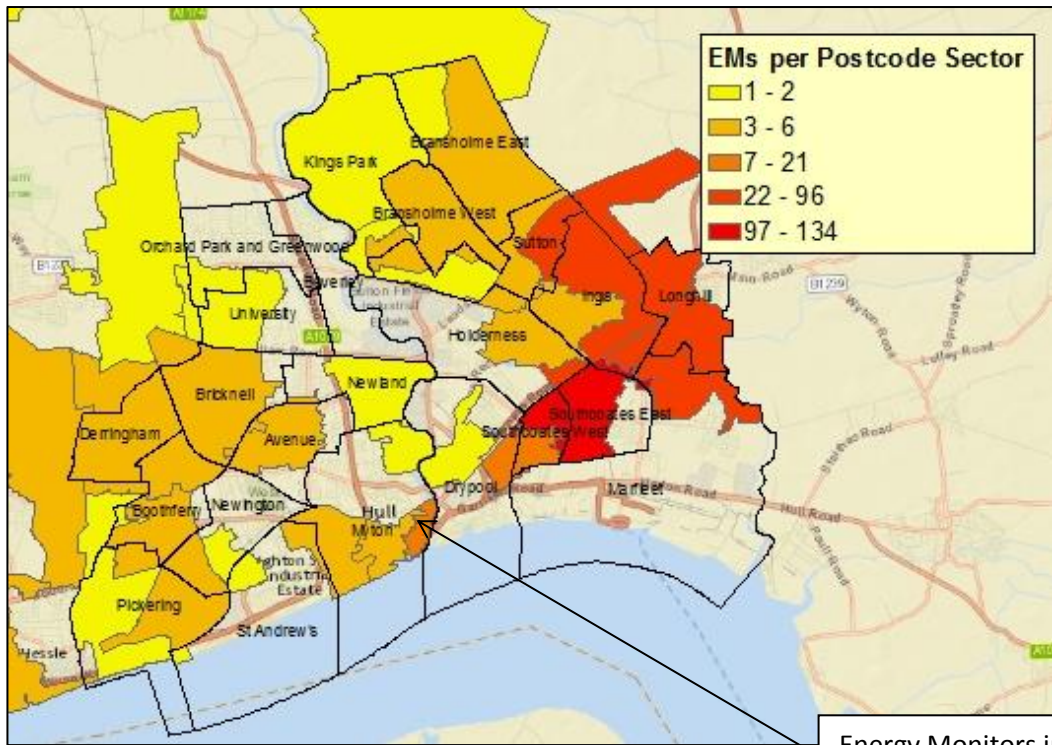
Hull East	13	£ 2,287	£ 176	£ 1,239	£ 772	£ 276
Hull North	2	£ 220	£ 110	£ -	£ 80	£ 140
Hull West	2	£ 600	£ 300	£ 320	£ -	£ 280
Total	72	£15,042	£ 209	£ 9,895	£ 3,331	£ 1,816
Proportion				66%	22%	12%

Figure 8.2) Community energy: savings by intervention per location



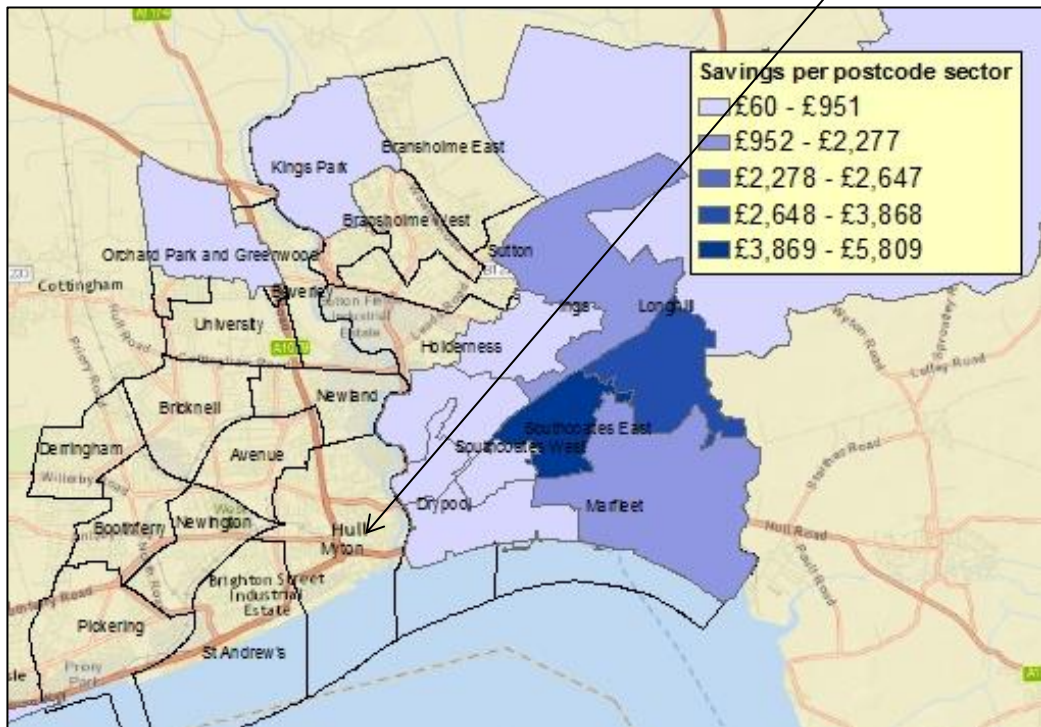
The collection of savings information was mainly focused on the two target wards, and particularly Southcoates East where the project has found it easier to engage on an ongoing basis with local residents, building up trust for respondents to share financial information. This is shown in the following maps (figures 7.3 & 7.4), which compare the energy monitors installed per postcode sector with savings identified per postcode sector. This also indicates that more savings information could have been identified if the project focused on data collection from other geographical areas. For instance, there is an anomaly in Myton Ward (as shown in figures 7.3 and 7.4) in the centre of Hull where the project worked with Affinity Sutton, a Registered Social Landlord (RSL) to provide energy monitors and advice to its tenants but then did not conduct follow-up work.

Figure 8.3) Community energy: energy monitors per postcode



Energy Monitors installed in Myton but no savings information collected

Figure 8.4) Community energy: savings per postcode



Savings as a percentage of household bills

The project was only able to collect information on the savings as a percentage of household bills from one resident who was willing to bring in her family's energy bills from before and after installation of the energy monitor. This family had two adults and two children, with someone always at home. The information identified a 21% cost saving through reducing energy usage year on year as there was no change in tariffs. For Longhill ward, it was possible to compare savings for five households to Warm Zone information for total approximate energy costs, which indicated savings of between 8% and 24% on energy bills per year. The average saving on energy bills from the use of energy monitors from these six cases was 15%.

Savings for the most vulnerable

Table 8.3 below identifies the levels of savings per ward for the 'most vulnerable' as identified by the project (long term sick and disabled, out of work, or older people). Proportionate savings for the most vulnerable compared to overall savings is the same in Southcoates East and Marfleet but fewer in Longhill and fewer across all wards. In addition, the savings information includes 44 vulnerable people referred to WHD but follow up would be required to identify how many were successful – if they were not successful this proportion of savings would be lower.

GP staff and wider stakeholders identify that savings amounts for the most vulnerable could be affected by difficulties of engaging with the most vulnerable to give savings information, residents on payment meters find it more difficult to identify savings as they often put in a similar amount each month and savings information takes longer to come through and residents on payment meters facing more barriers to change tariffs and payment methods. The project has estimated that approximately 40% of local participants have payment meters. Therefore it could be viewed that the project had difficulties working with the most vulnerable over a short two to three year time span.

Table 8.3) Community energy: savings for people identified as vulnerable

Wards	Energy Monitors	Vulnerable People	% to vulnerable people	Savings	Savings for the vulnerable	
SCE	150	95	63%	£ 6,209	£3,799	61%

Longhill	117	84	72%	£ 3,107	£1,929	62%
Marfleet	65	50	77%	£2,619	£2,028	77%
Hull East	66	41	62%	£2,287	£868	38%
Hull North	22	12	55%	£220	£140	64%
Hull West	34	23	68%	£600	£600	100%
Other	12	2	17%	£-	£-	
Unknown	9	1	11%	£-	£-	
Total	475	308	65%	£15,042	£8,999	60%

Impacts for the community

Based on savings of approximately £200 per household per year, the project reported headline savings of £100,000 for the community based on reaching 500 households. However, two key problems with this amount was that it did not factor in households that obtained energy monitors but did not engage, and it included referrals to WHD which may not have been obtained. Another issue is that tariffs may slowly increase over time due to national energy insecurity issues.

The use of the energy monitor indicates that there was some behaviour change in reducing energy usage potentially leading to reductions in CO₂ emissions (Hargreaves et al 2010). However, there is very limited quantitative information direct from utility bills. Project staff identified that once people have changed their behaviour and reduced consumption then this should continue into the future, but there will be limited scope for further reductions in energy usage. The potential for some behaviour change through the initial use of the energy monitor, but then scope for limited further changes is in line with the findings of Hargreaves et al (2010) and Hargreaves et al (2013b) in their longitudinal study into the use of smart meters. Hargreaves et al (2010) and Hargreaves et al (2013b) also identify they were not able to collect quantitative information to identify reductions in CO₂ emissions.

Part 3) Household and community-level approaches

The value of household level work by CSOs in reducing energy usage and saving money is acknowledged in the background literature (Stephenson et al 2010, Lorenc et al 2013). The success of the home visits approach by the GP project was also recognised by the wider

stakeholders in the CLS project. Staff from the CLS project also identified the value of home visits in reaching people and also providing data particularly from hard to reach vulnerable people:

‘home visits have proven to be a high value activity under the CLS programme. They have reached a large number of people, have been very effective at reaching and helping vulnerable people and demonstrate the importance of working with delivery partners..... The second reason is that they have provided the best opportunity of any activity under CLS to collect good data on real energy use, impact of advice, measures and behaviour changes. Green Prosperity has some of the best data and it actually demonstrates a link between energy monitors and energy saving behaviour and financial savings’. [CLS project staff member].

A number of CLS projects planned more continuous work with residents by using volunteer ‘energy champions’ to engage vulnerable residents on an ongoing basis, developing a group of community intermediaries (Stephenson et al 2010). However, there was no constructive learning made available on the success of this approach.

The GP project did not try to work with volunteer champions from the local community citing a lack of interest from residents and volunteers. The project did work closely with two registered social landlords (RSLs): Affinity Sutton and Pickering and Ferens (P&F), and developed close working relationships with the housing wardens to help engage residents and provide ongoing support, emphasising the importance of wardens as trusted community-level intermediaries (Stephenson et al 2010, Rotmann and Mourik 2013).

To develop the working relationship with P&F, the community energy staff member initially described the energy monitor and other advice to the sheltered housing warden and also to a roadshow sharing information with P&F residents. The staff member then visited the sheltered housing scheme and spoke to residents at the regular coffee mornings.

The work with P&F warden helped identify residents to work with and begin conversations. A number of residents have high tariff charges from their energy suppliers, and also had not heard of the Warm Home Discount (WHD). Providing the energy monitor was a good way to open discussions on these different issues. In an interview the local warden identified:

‘a lot of them don’t understand, they just use the same supplier, and don’t realise, and some just say “oh I’m alright with what I’ve got”, so you’ve got to talk to them, so I think it would be real good to have the energy monitors’.

These issues were corroborated by P&F residents who reported problems with inefficient energy usage, obtaining good tariffs, and obtaining the WHD – as discussed in the interview findings in Part 4 of this section.

It is important to consider the role of the warden and the ongoing communal activities at P&F as part of sustainable place-making (Stephenson et al 2010, Parkhill et al 2015). On one hand it enabled the staff member ongoing access to residents to talk about the monitor and follow-up on any concerns. From a research perspective I was able to interview the warden and some residents in person rather than by phone. In addition, since the GP project finished, EMS has worked together with P&F on a biodiversity project and identified that the warden now has a file for each resident detailing their tariffs, when their tariffs are up for review, and whether they have applied for and received a WHD.

In contrast, the community energy staff member didn’t build on the potential for other community-level approaches. There was no follow-up work with Affinity Sutton after the initial work to provide energy monitors to residents. In addition, the GP office space was not used as a space for residents to come together to discuss energy related issues (Goodwin 2012). The staff member did not make a concerted effort to engage with the ongoing UA volunteers, with only three of the regular volunteers having an energy monitor installed. Some volunteers expressed an interest but were not followed up by the project, reflecting a lack of concerted effort from the GP project, which didn’t provide any specific incentives for volunteers to be involved. Two early volunteers from outside the target wards were told they did not meet the initial criteria, and although flexibility was introduced this could have also affected take up.

Staff performance issues were a factor in this lack of coordination with UA activities, as suggested by other staff members, which are discussed in more detail in Chapter 9 on governance. However, there was also a lack of interest from UA volunteers for a range of reasons including that volunteers were already energy efficient, they lived with large families and did not feel in a position to control consumption, that their partner was the one who looked after energy use and bills, or that their local warden took care of energy

related issues. In addition, five of the families involved in the Family Growing Project did obtain energy monitors.

Part 4) Feedback from interviews with participants

I conducted interviews with 40 residents who received energy monitors, from March 2015 to March 2016, with some residents interviewed twice. The research focused on collecting quantitative savings information and qualitative information on how and why people used energy monitors and any challenges faced. 12 were interviewed in person and 28 by phone or email. This was not a representative sample of people who received energy monitors. The majority of respondents had engaged with the project and wanted to give feedback. However, some respondents had not particularly engaged but were available at the time of contact. The results of the feedback are presented below.

At least 24 of those interviewed could be identified as vulnerable including older people, unemployed, long term sick and disabled, or those caring for disabled relatives. Two respondents could be considered low income, high cost families who are also vulnerable to fuel poverty. However, no resident identified they lived in fuel poverty, including one person who said they had used a food bank in a previous interview. In addition, an older couple who lived in P&F sheltered housing and were not able to heat their home adequately, did not describe themselves as living in fuel poverty as illustrated in the quotes below.

Interviewer: 'Was it warm enough last winter?'

Mrs Franklin (resident at P&F): 'It wasn't last winter when there was snow. That's when it's bitterly cold. You can have it on 6 which is the highest, but it is still cold. We've both got health issues so we are going to feel the cold'.

Despite not describing themselves as living in fuel poverty, the quote shows that energy inefficiency can present significant health and stress issues (Liddell and Morris 2010).

In the interviews most people described benefits in terms of financial savings. 22 households identified they had saved money, with savings ranging from £50 to £500 per year, through a mixture of advice on tariff changes, changing payment methods, use of the energy monitor and successfully applying for the WHD after advice. Another three households identified they believed they would save money but it was too early to quantify at the time of the interview. Two families on payment meters identified how it

took time to identify savings as they put in similar amounts each month and had only recently noticed changes. The important role of the GP project in enabling some vulnerable people to save money through switching suppliers and reducing tariffs resonate with findings from Lorenc et al (2013) and Simcock et al (2016) on the essential role of civil society organisations working with families on a one to one basis.

29 households identified they had been able to use the energy monitor to reduce energy consumption with 21 of these achieving financial savings. The highest amount of savings solely from using the monitor was £360 pounds per year for a vulnerable resident who was elderly, long term sick and also caring for a relative. This resident received additional help from two family members who lived locally to use their monitor and generate savings. Another resident, who was not classified as vulnerable but was caring for his wife, achieved savings of £300 per year. None of the respondents identified that they reduced necessary heating – suggesting that using energy monitors did not negatively affect health.

The following quote identifies how one respondent was using the energy monitor.

‘I think that's one of the greatest things about the meter you seem to be more in control or maybe the fact you can exactly see what energy your using each hour, it sort of empowers you....generally over the winter periods I would use both extra gas and electric. I found with the meter that my amount of electricity did not get any bigger at all, so I could easily say it was at least £50 a year saving I made, but also my normal monthly amount of electricity seems to last me a lot longer’ [Single parent resident using payment meter].

This quote identifies how the energy monitor increased visibility of energy use, control and empowerment, in line with the findings of Hargreaves et al (2010) and Hargreaves et al (2013b). Residents identified that they have used the energy monitor to isolate and identify appliances with high energy usage. One resident used the energy monitor to identify high levels of usage from a freezer in the garage with a broken thermostat. Another resident had reduced unnecessary usage of an electric fire, with the savings proving very valuable in a time of financial hardship as she transferred from the Disability Living Allowance and onto the Personal Living Allowance, with a potential 4 week gap in benefits payments during the assessment stage (Snell et al 2015). Other residents identified how they reduced usage of excessive lights such as multiple lights in the ceiling, kettles and other appliances.

Mr and Mrs Franklin from P&F identified how they had used the energy monitor to identify the high cost of using fluorescent lights:

Mrs Franklin: 'the Owl thing is in the kitchen, and we watch TV in the kitchen, and were mostly in during the day, and we check when it comes on and when we switch it off'

Interviewer: 'So you're really using it?'

Mrs Franklin: 'The strip lights really use a lot... I thought fluorescent were meant to be the cheapest but they're not'.

This quote also identifies how placement of the energy monitor in the kitchen helped them monitor usage, with other respondents identifying how they placed monitors next to the TV.

Mr and Mrs Mitchell, a retired couple, explained how they identified a need to move their thermostat into the front room based on information from the energy monitor:

Mr Mitchell: 'we're not boiling the full kettle every time, and things like making sure we keep the doors closed for the heating, it just makes you aware of everything you know what I mean.'

Mrs Mitchell: 'It didn't occur to me and I wasn't really bothered actually about having the thermostat in the hallway so if I left that door open I didn't realise it was trying to heat this room up as well...'

My Mitchell: 'the thermostat is in here [front room], but the actual switch is in the hallway. But because we are in the front room mostly, then I keep that here. Before the thermostat was in the hallway so it had to heat the full house, hallway, landing'.

Three of the residents questioned identified how it was their partners who were responsible for managing the bills indicating that household relationships also impact on the use of the energy monitor (Hargreaves et al 2010): For instance, Will from the Family Growing Project identified:

Will: 'I am definitely more cautious. If I see the money go up on the wall I say no'

Interviewer: 'are you saving any money on bills?'

Will: 'to be honest with you, I don't look at my bills. The wife looks at the bills, you're better off asking her.'

In addition to the energy monitor, the project has provided a Power-Down-Plug to some residents, which helps turn appliances off instead of keeping them on standby. 10 of the residents questioned were using the Power-Down-Plug which has been particularly useful for older people and people with disabilities who find it difficult to bend down:

'the power saver plug is a fantastic piece of kit and if anything I believe this will have saved us electricity this year' [Local resident].

10 of the residents identified they benefitted from advice on their tariffs, with 7 identifying how this saved them money, including through negotiating better deals with existing suppliers and changing payment methods to direct debit. These findings resonate with research on how civil society can help people access better deals information from suppliers through improving procedural justice (Walker and Day 2012, Snell et al 2015). For instance Mr and Mrs Franklin identify how using the energy monitor and advice on changing tariffs had saved them £26 per month – this was before winter, and subsequent savings could be higher:

'We went to EON from Npower, we're on a cheap one now but it wasn't, it was dear, got me fingers burnt.....we only went over on the 6th of November. But our direct debit has gone down from £82 and we're paying £56'.

Payment meters are a significant issue due to the higher tariff charges affecting poor families in particular. A number of respondents (5) identified how they used payment meters to manage their bills. For instance, Connor a UA volunteer identified that:

'I don't pay electricity bills, or gas. I've got a key meter which is better for me as I don't pay bills. I refuse to use gas, because when I first moved in the house, I put £50 pound on the electric and £50 on the gas. I didn't use any gas, gone in two weeks.....why? and they wouldn't tell me. I don't use no heating'.

This quote illustrates how lack of transparency on bills, and particularly payment meters stops people using fuel, making them particularly vulnerable to fuel poverty in the sense of lack of heating (Snell et al 2015).

One resident identified how using an energy monitor and advice from the project increased awareness on the excessive charges for payment meters, including using electricity at an emergency rate when there is less money in the meter:

‘Electric meter, see how much it costs when it’s at [Emergency Rate]. Ran out of money, running at higher rate, everything running at exactly the same but costing us more money. Wouldn’t have known that if I hadn’t have had the energy meter on’.

For example, after a visit and receiving advice, one of the families took steps to change from paying by payment meter to direct debit for all their utilities. They needed to improve their credit rating which took a number of months, but in the end were able to save approximately £480 per year. Another family who is also involved in the Family Growing Project is also taking steps to change their payment method from payment meter to direct debit and were saving up to pay the energy company a fee to change to direct debit.

The Warm Home Discount (WHD) is also provided directly from suppliers. Three of the residents questioned had already obtained the WHD before contact from the GP project. One resident who cares for her disabled son was not aware of the WHD but after engaging with the project successfully obtained the discount of £140, helping her financial situation. However, two elderly Pickering and Ferens (P&F) residents interviewed had not yet been successful in obtaining the WHD. Mr and Mrs Franklin illustrate some of the difficulties in transparency of obtaining the WHD:

‘We’ve just applied – he used to have it in his name [Mr Franklin- husband] – Sandra [P&F warden], helped us to change over [tariff supplier] and she said put in for it with them, and she said put it in your name [not husband’s] you should get it, and that’s what we’re going to do next’.

Another P&F resident had tried to help her elderly neighbour apply for a WHD but again was initially met by a lack of information which put her off applying herself:

Interviewer: ‘Did you apply for a Warm Home Discount?’

P&F resident: ‘Well I did for my friend Ken, he’s 92 is Ken, and he’s always cold, and oh what a palaver I had... well I rang the place, but not the supplier, I don’t know, they give me this number to ring, and I rang it, and I haven’t heard anything since

and it must be a month ago... I thought I wouldn't bother with myself because there's that much messing'.

The need for personalised support and follow-up

Follow-up in future years would be required to identify how many of the vulnerable residents had applied for the WHD and responses from the energy companies. The need for continuous advice was also identified by residents who had tried to access support from other organisations, in line with studies identifying residents need support to achieve procedural justice (Walker and Day 2012, Snell et al 2015). Many residents were not clear on the different energy efficiency initiatives available from Hull City Council (HCC) or through Central Government mechanisms such as the Green Deal, whether they qualified and whether they could obtain energy efficiency improvements to their home. One resident identified how they had received good quality work through HCC or the Warm Zone project (there was confusion on the different roles of Warm Zone and HCC). However, three LA residents identified how HCC's response to their requests to improve their energy efficiency had been poor – two residents identified their front door was very draughty, with one resident complaining HCC had visited a number of times but had not repaired it properly. Another resident complained they had called HCC or Warm Zone a number of times about improving energy efficiency in the home with no response. In addition, three residents who had had their properties energy efficiency rated by Warm Zone, including one with a poor rating of G, did not know how Warm Zone would be able to help them improve their energy efficiency. This lack of response to residents with poor energy efficiency performance indicates lack of recognition and procedural and distributional justice issues (Walker & Day 2012). For instance, if HCC visits a house and identifies a very poor energy efficiency rating, the householder should be provided information and advice on how to improve. Two residents described contrasting experiences of loft insulation work, one receiving good quality work, but another received poor quality work and did not know who had carried out the work and who to raise any problems with. No residents had tried to use Green Deal.

Follow-up also emerged as an important issue in whether people had issues using energy monitors (Hargreaves et al 2013b, Lorenc et al 2013). For instance, Mr and Mrs Mitchell also had a British Gas monitor and identified differences between the two monitors and wanted further advice – I reported this back to the GP project but no follow-up visit took place. In addition, 11 participants interviewed were not using the energy monitor. Nine

families with children and vulnerable pensioners without support identified the most difficulties using the energy monitor effectively.

Residents were asked about whether the project activities helped reduce stress or improve health and well-being. Residents did not describe any benefits in this area in any detail. This could have been a consequence of largely interviewing people by phone but also because individuals were only starting to realise benefits. For instance Mr and Mrs Franklin referred to feeling cold and poor health the previous winter, but the interview took place before the onset of the following winter. In addition, one participant identified how help with energy costs was important to help deal with a wider range of financial stresses, with potential reductions in benefits a key source of stress (Liddell and Morris 2010, Snell et al 2015).

Part 5) Long-term sustainability

In comparison to the UA activities there were more ambiguous views from EMS staff on the value of continuing community energy work after the GP project completed. A longer term project could have provided more scope to work with residents to identify long term changes and savings and support residents who encountered difficulties using the energy monitor or working with other organisations. However, the GP project also felt it had exhausted working with residents who had energy monitors. For instance, the energy monitor officer was not able to obtain any more savings information in 2016, including from people who had provided information before. In addition, staff felt it had exhausted attempts to get other local residents from the two target wards to participate in the project.

However, EMS felt strongly that further funding should be used to target new geographical areas and submitted funding proposals where possible. In addition the project approached other RSLs and HCC to identify if they would be interested in their tenants accessing monitors and advice. However, this approach was unsuccessful with the project identifying a major influence on not being able to obtain further funding was government legislation to ensure energy companies provide smart meters by 2020 (Hargreaves et al 2010). The project did not consider expanding into other areas of community energy projects, including renewable energy. Lack of funding opportunities for renewable energy was a key issue, which is explored in more detail chapter 9.

8.2) Missed opportunities: Could there have been more sustainable place-making activities to help the local community?

The literature explored in Chapter 4 highlighted how much research into community-focused sustainability is often focused on only one intervention, such as UA or community energy as separate activities. The GP project could have provided opportunities for residents to be involved across a number of sustainability-focused activities including UA, community energy and also waste recycling, the eco-house, eco-enterprise development and Green-Care.

However, the findings describe how there was limited outreach from the community energy activity to UA volunteers and participants. In addition, the eco-house, eco-enterprise and Green-Care activities did not outreach into the communities for a range of reasons including poor management of these activities. The eco-enterprise and Green-Care activities in particular were planned to engage and support members of the community in a similar way to the UA and energy monitor activities. If successful these activities could have helped the GP project develop a more well-rounded approach to community-level sustainable development through benefitting local residents at individual and community levels and contributing to environmental sustainability. For instance, many of the volunteers and participants of UA activities were providing care to relatives. Support for local carers would be in line with an approach to develop a green economy identified by Bauhardt (2014) with a focus on improving social sustainability, and a number of GP stakeholders held high hopes for this activity to be an innovative way of helping local residents. In addition, two of the local regular UA volunteers, Mandy and Nancy, were trying to start their own businesses during 2015 and were trying to access advice. The Eco-House could have also been used more effectively to support the community energy project through providing an example of an energy efficient house using both renewable energy and energy saving measures. However, the failure of these activities could also have important lessons for differences between CSOs focusing on sustainable place-making initiatives, than more complex innovation focused projects (Seyfang and Longhurst 2013).

Responding to priorities

In relation to waste recycling, there was a lack of outcomes for different reasons. The project conducted a survey to identify whether it would be possible to increase recycling

levels by a target level of 5% and the type of activities it could focus on. The survey was also used to gauge interest in grow your own food and volunteering and was used as a basis for contacting respondents about activities.

The survey received approximately 1,000 responses. 56% of respondents were from the two target wards plus Marfleet, 227 (23%) from Longhill (largest group) 194 (19%) from Southcoates East, and a further 135 (13%) from Marfleet). 44% were from other parts of Hull. The survey results were then analysed using Excel and statistical software packages. Excel was used to identify overall recycling rates. Bivariate analysis was conducted to identify relationships between key variables, and then multi-level modelling to explore relationships further where possible. Multi-level modelling was conducted to identify the most likely statistical relationship and therefore the variable which has most influence. Appendix 1 contains detailed results from the analysis although a summary of key results is presented below.

Analysis of the survey identified that use of HCC blue recycling bins is very high at 98%, with 90% identifying regular usage. The survey identified very high rates of recycling in the local area with 90% of respondents regularly recycling paper, cardboard and plastic in blue recycling bins and 75% regularly recycling food and garden waste in brown recycling bins. Local stakeholders believed the findings were accurate based on their knowledge of recycling in the local area. The analysis also showed that residents from Longhill, Southcoates East and Marfleet had proportionally higher rates of regular blue bin recycling than residents from other areas in Hull. The multi-level modelling identified that household type and property type are significant with people from single occupancy households 50% less likely to recycle than families. People living in semi-detached and larger properties are 1.56 times more likely to recycle than people in terraced housing. Bivariate analysis raised potential issues relating to age, ethnicity, and long term illness which were not significant in multi-level modelling.

The findings from the survey indicated limited scope to improve recycling by 5% in the local area although the project considered some work to target people living in smaller houses and flats that had lower rates of recycling. However, EMS did not prioritise work on waste recycling given limited potential for improvements, compared to other activities including UA and community energy. This decision was supported by the Big Lottery Fund.

There was a range of different governance factors influencing why some activities were implemented and others did not outreach into the community (Choudhury and Ahmed 2002) which are explored in more detail in Chapter 9 on project governance.

Impacts from being involved in more than one activity: stories from participants

Due to lack of community outreach across eco-enterprises, the eco-house, Green-Care and waste recycling, when researching impacts for participants across more than one activity, I was only able to explore benefits of being involved across UA and community energy activities. From the seven UA volunteers or FGP participants who had energy monitors, only four actively used the energy monitor. However, these four examples provided scope for important outcomes as the participants were vulnerable to financial poverty, with consequences for food and fuel poverty (Perry et al 2014). The individual stories are briefly explored in Box 8.2 below. Some of the participants also discuss how the project made connections to environmental actions and values which are explored in more depth in Chapter 10. Pseudonyms have been used to ensure confidentiality.

Box 8.2) Individual stories: benefits of participating in both UA and community energy activities

Barbara is a disabled grandmother living in Longhill. The project provided Barbara with an energy monitor and also Barbara was one of the 10 families on the family growing project.



Barbara's daughter had attended UA activities and had received an energy monitor and then passed the project information to Barbara.

Community energy: Barbara was in receipt of the WHD and also had negotiated good tariff rates with her energy supplier. However, using the energy monitor and a power down plug had helped save her £180 per year mainly through reducing usage of an inefficient electric fire.

'[I use it] all the time, yes, because it surprises you, how much things cost...we use to use an Electric fire all the time , but when you look at how much it costs' .

UA: The Family Growing Project was really important to Barbara. Barbara needed

raised beds and other support due to a physical disability in order to help her grow more fruit and vegetables. Barbara grew a wide range of fruit and vegetables for enjoyment, health benefits and also providing good nutritious food for her and her grandchildren, involving her grandchildren in activities.

'My salad leaves, my tomatoes, and beans, loads of different types of beans and my grandchildren absolutely love beans....and when you're actually planting up the kids love it..... they like to help to put it out, and they know that you don't just buy a packet – that's where it grows, so they enjoy it'.

Saving money is important to Barbara. Barbara has had to go through reassessment to move from the Disability Living Allowance (DLA) to the new Personal Independence Payment (PIP). Even though Barbara has been told she will qualify, there could be a 4 to 8 week payment gap between her DLA support finishing and PIP starting.

Alison is unemployed and caring for her autistic son. Alison received an energy monitor and also a small allotment and food growing support through the Family Growing Project. Involvement in GP activities been important as Alison struggles financially. Alison said she has used a foodbank to help manage her household needs, but has said she is not in fuel poverty – she has always managed to pay her bills.

Community Energy. Alison has used the energy monitor to keep her bills down, and also received advice on tariff changes, using the information to get a better deal from her existing supplier.

'It's helped, and I've got my energy bills down... I was paying £72 and I am now paying £68 that's a month, that's just watching what uses the most energy and trying to reduce energy.I did get advice on Tariffs, but what I did was go to my own energy company and told them that I had been investigating other suppliers and they offered me a different tariff, (Did that help reduce your bills?) it probably did and they said that would bring the bills down [but] the thing that came through the bill most was watching my electricity use through the monitor'.

UA: The Family Growing Project.

Alison was supported with a small allotment and was supplied with seeds and resources - this was particularly helpful for Alison who might have not been able to get involved in the project otherwise. This has helped Alison add nutrition into her meals - which is particularly beneficial for her autistic son. Alison also enjoyed involving her grandchildren in the family growing project – involving children was a key aim of the project and the families involved.

Links to environmental sustainability.

Alison also identified how she felt her gardening and recycling, in addition to reductions in energy usage helped her to contribute to environmental sustainability:

'there also the aspect of growing your own, growing as much as you can, you reduce your carbon footprint, quite a lot, if you're going out in the garden and growing onions, and not growing Spanish ones'

Interviewer: 'Is that important as an issue?'

'Yes I think it matters and it is an issue to reduce your carbon footprint. You're also directly recycling from your own environment, that would normally be put into landfill that you're using, recycled wood, plastic sheeting, recycled bricks.....it all counts because if you're using it, recycling it on the allotment rather than it going to landfill, pallets are a big thing as well – to make fencing'.

Gail has been involved as a volunteer at the community garden and had received an energy monitor – responding to leaflets from the project to her home in Longhill.



Gail could be identified as vulnerable. Gail is aged between 55 and 64, she is not currently working and has physical health problems, although her husband does work.

Her property was also rated G by Warm Zone, meaning it has the lowest Standard Assessment Procedure (SAP) rating – the highest running costs and highest CO₂ emissions. Using the energy monitor helped her generate savings of £168 per year, through advice on tariff changes:

'the guy come round and give all the information about it and showed us how to work it, what to do about your bills – that's what you want don't you, I mean crikey – if you can get your bills down, go for it – what they're charging us'.

But Gail could be given longer term assistance. For instance, Gail considered she had an energy efficient home and was not clear how she could improve her energy efficiency further. If it was continuing, the project could work with Gail over the long term due to her engagement with the community garden.

Gail really enjoyed the community garden, helping her work with other volunteers, and grow fresh fruit and vegetables – some of which she enjoyed taking home.

'It's like community....making friends, and you're producing fruit and vegetables....And that's a good thing as well isn't it, it's like organic so to speak, that's what I like about it'

Gail also saw connections between her actions and environmental sustainability:

'Well yes, you've got to think about the environment, yes of course you have...it's [Climate Change] not going to affect us- it's going to affect, not my kids, but their kids if we don't do something about it'

Sarah lives in Southcoates East with her family, including her autistic son. She has an energy monitor and also was supported through the family growing project. Sarah learned about the project through local connections.



Sarah identified she had saved £100 per year through using the energy monitor. She also received advice on tariffs which has made her plan to switch from payment meter to direct debit. Sarah had difficulty switching saying she cannot afford the £150 payment needed to switch – she will be able to switch next year.

Sarah explained how she heard about the project and saved money.

'Because we'd been to someone's house and it was like, you know, it's a new gadget isn't it, and they'd flick the kettle on and it would shoot right up, I said it's amazing, and she said if you go to GP and they'd come and fit it.. We did the thing where we switched everything off apart from the fridge and the freezer and we'd switch things onbut it has been really good because it made me think, the tumble drier doesn't go on as much, when we first got it instead of putting it on we've got an ailer [rack], so we have two now, so everything goes in there'.

Sarah has experienced fuel poverty in the past, but tries to manage her finances so it will not happen – and the project has helped in terms of growing food and increasing fuel efficiency

I used to live in a very, very, cold, draughty house, freezing cold house, it was a big house as well.... since I moved out I've never had a cold house because I've had ice on the windows, freezing cold, so I won't let my kids, I'll go without to make sure the gas is paid – when you've been there, you've been in that poverty you think I'll never do that again, so I make sure the children have always got food in, even if its food they don't particularly like'.

The Family Growing Project. Sarah joined the project for fun, to educate her children and also try and save some money. Sarah and her family successfully grew

a range of fruit and vegetables. As well as successfully involving her children Sarah also enjoyed some health and well-being benefits which she hadn't anticipated. The outcomes were really motivational for Sarah, and also for the volunteers that worked with her.

Sarah also identified a link between her growing her own food and reducing recycling and how this helped her to contribute towards environmental sustainability.

'Oh yes, because I can go out and pick something, it's not in packaging which is brilliant because we have way too much packaging. My blue bins are full every fortnight because everything you buy has 3 layers of packaging on it and you have to throw it away.. if you get it out of the garden, and you wash the mud off it fine, and you don't need that extra packaging'.

8.3) Conclusion: the value of providing a range of sustainable place-making activities

Parkhill et al (2015) place community energy projects within sustainable place-making through a focus on the role of CSOs in working on issues affecting the community and strengthening community resilience to issues such as fuel poverty. Participants described the financial benefits of being involved in the community energy activity with increasing self-reliance resonating with the findings of UA activities. Over 70 participants of the community energy activities experienced beneficial outcomes, particularly relating to saving money on utility bills. The smart meter and other information could be seen to improve the visibility of energy usage and energy literacy (Stephenson et al 2010, Hargreaves 2013b), emphasising the importance of household visits. Saving money is particularly relevant to many people in the target wards, with a high number of participants vulnerable to fuel poverty (ONS 2011, Walker and Day 2012, Porter et al 2015).

In line with the UA activities, the CE activities also emphasises the essential role of civil society in reaching out to vulnerable people (Saunders et al 2012, Lorenc et al 2013, Parkhill et al 2015) also indicate a strong connection between tackling injustice and sustainable place-making. For instance, the project helped vulnerable people access government assistance, better tariffs and reduce costs in line with recognition, procedural and distributional justice issues (Walker & Day 2012, Snell et al 2015).

However, there were less clear social outcomes such as health and well-being benefits. In addition, there are less clear beneficial social outcomes at a community-level than in comparison to UA activities. This is a potential consequence of less continuous engagement and the more individual and household focus of community energy activities which meant limited community-wide engagement, discussion of ongoing issues and ongoing collection of information (John et al 2009, Stephenson et al 2010, Lorenc et al 2013). However, in its limited work P&F the project showed the potential value of working through community intermediaries in reaching out to vulnerable people, bringing people together in a communal space, and following up activities to develop community-wide benefits.

From an environmental perspective, there was also limited evidence of CO₂ emissions reductions, in line with difficulties encountered in other research and potentially reinforcing criticisms that local level projects will not have the required level of impacts to tackle climate change (Chatterton and Cutler 2008, Hargreaves et al 2013b). For instance, householders were very reluctant to share utility bills which could have provided this information. However, use of energy monitors to reduce energy consumption led to savings of over £3,331 across 27 households, which would indicate reductions in CO₂ emissions.

Even though there was limited work with UA participants, there were important outcomes helping reduce vulnerability and increase self-reliance and also some connection to supporting wider environmental actions and behaviours. The potential for more social, economic and environmental outcomes would have also been increased had other GP activities including Green-Care and eco-enterprise activities been effective and there was increased opportunity for residents to become across different activities. In contrast to waste recycling, Green-Care and eco-enterprise activities were considered to be important to respond to local needs. For instance, providing support to local carers would have been particularly relevant to the local population and could have worked towards increased social sustainability (Bauhardt 2015). This indicates a missed opportunity for the project and indicates that the overall effectiveness of the project was impacted by project governance issues which are explored in more detail in the following chapter.

Chapter 9) Exploring governance as a platform for project effectiveness and long term sustainability

Introduction: importance of internal and external governance factors

Detailed analysis of Green Prosperity (GP) activities in the previous chapters has indicated that governance arrangements have a major impact on activities, in terms of outreach, engagement and outcomes, and therefore also project effectiveness (Rotberg 2014).

The background literature also describes a wide range of external institutional influence on project governance. For instance, Kirwan et al (2013) and Creamer (2015) describe the importance of the impacts of project donors and intermediaries. Franklin & Marsden (2015), MacMillan (2015) and Mathers et al (2015) describe the influence of local and UK Central Government policy and practices on civil society organisations and sustainable place-making.

In this chapter I explore connections between internal and external governance arrangements, and how they impact on project effectiveness (Choudhury and Ahmed 2002, Rotberg 2014). The chapter then focuses on long-term sustainability and explores whether Green Prosperity (GP) project stakeholders were able to continue activities after the BLF project funding finished. Long-term sustainability of activities is a critical aspect of sustainable place-making and individual projects cannot contribute towards social, economic and environmental sustainability if the benefits or changes from the project only last for a short period such as three years as was the case for the GP project (Kirwan et al 2013, White and Stirling 2013, Creamer 2015). The chapter explores whether long term sustainability was an outcome of project effectiveness. However, analysis of project sustainability also considers another essential aspect of governance: the potential to build effective networks and alliances (Choudhury and Ahmed 2002).

The research tracked what happened to each of the project activities after the project finished in 2015 to the end of my research in 2016. The role of the local council, Hull City Council (HCC), in recognising and supporting activities to be sustainable is also considered (Franklin and Marsden 2015, Purcell and Tyman 2015, Mathers et al 2015). A vignette of

the volunteer group and the community garden is explored in detail to illustrate some of the issues and challenges.

The chapter is developed from interviews with project staff and intermediaries, project beneficiaries and wider stakeholders including Hull City Council. In addition, data were gathered through attendance at stakeholder meetings and workshops including Communities Living Sustainably (CLS) workshops and analysis of organisational document. Real names have been changed to pseudonyms to protect anonymity.

This chapter is important to increase understanding of the real-life wide ranging governance challenges facing civil society organisations in implementing long-term projects.

9.1) Effective projects: the influence of internal project governance

This analysis of internal project governance is separated into two parts: 1) project decision making and 2) approaches to engagement and participation.

Part 1: Project decision making

The impact of project partnership arrangements

The GP project was organised such that each partner was responsible for delivering different activities, giving clear areas of responsibility. EMS was the lead partner and responsible for delivering community energy, volunteer outreach and any waste recycling activities. Probe was responsible for UA, eco-enterprises and the eco-house. The Freedom Centre was responsible for Green-Care. Stakeholders identified this small-scale partnership as an effective vehicle for delivering activities. For instance, Alistair (the GP project enabler appointed by the CLS learning partnership) identified that other CLS projects could learn from GPs partnership approach: 'I think there's a lot they could learn from GP about how to organise and deliver a project, how to work as a partnership, how to focus on a few things and deliver them well'.

Partners utilised each-others key strengths to increase the outreach and impact of activities. For instance the Freedom Centre was used as a venue to engage with the local community on community energy and UA activities, including through the Seed Swap and

presentations at adult education courses. In addition, Kate from Probe and Mark from EMS developed a strong joint working relationship on developing UA activities and supporting volunteers. Jon, the Probe manager, identified that: 'If Mark hadn't been available, to support Kate a lot, then it would have been a lot more difficult to achieve some of these outcomes, that has been invaluable'.

However, the blurring of activities created communication issues between partners which affected both staff and management. For instance, Jane, a deputy manager from Probe, identified that:

'Initially it was very difficult to coordinate who was going to do what and who was going to be responsible for what – and to be quite honest, although Mark and Kate work very well, there have been occasions where the communication slipped completely and it is only Kate who knows what's going on in this office. I mean there was a request for regular team meetings, and meetings every fortnight, but only me and Brendan [another Probe UA staff member] turned up'.

There were also some obvious difficulties with EMS having a sense of powerlessness to influence some of the poorer performing activities from Probe (eco-enterprises and the eco-house) and the Freedom Centre (Green-Care), and trying to rely on the inputs of Alistair (project enabler). Jane (Probe Deputy Manager) identified the potential need for a service level agreement to hold partners to their different responsibilities.

Nunan (2010) identifies that Board of Directors (BoD) are a key component of organisational governance as the people responsible for decision making. However, Nunan (2010) also identifies that Chief Executive Officers (CEO) are increasingly relied upon to provide evidence for decisions and recommend a course of action. For instance, the BoD usually relies upon the information presented to them for decision making, with a CEO largely responsible for compiling this information. During the research it was evident that the BoD's of the project partners were distant from the day-to-day decision making once the GP project had started and did not get involved in trying to resolve areas of poor performance including between the different partners. The BoD's focused on providing oversight, advice to management and on long term sustainability including using their networks and skills to identify and apply for future funding opportunities.

There were also issues around which important organisations were not involved as partners, and how communication and participation was managed with these stakeholders. For instance, UA staff were frustrated at the involvement of East Hull Community Farm (EHCF) staff in the project. EHCF was not a project partner, but was used as a venue for the community garden and some UA training courses and events, with Val (EMS manager), and Jon (Probe manager) on the EHCF Board. Brendan from Probe explained that:

Brendan: 'it's felt like that what we've been asked to do as staff is to go in and we're making changes to the farm and we're increasing the amount of people at the farm and we're increasing the activities that are there [and] we're not incorporated in the farm and so it's always going to have these weird barriers, I don't find it a very healthy way to work really, I find it's got a lot of difficulties'.

Interviewer: 'Probe are going to support a position in the farm?'

Brendan: 'Yes but I think that is going to have its own problems - in a way I just feel like an outsider doing something completely different on their site'.

In addition, from a sustainability perspective, Margaret (NEF), suggested that the partnership could have expanded to include more effective representation from HCC, a view supported by Alistair in his experience of two other CLS projects. Involving the local authority in the partnership could be in line with the sustainable place-making approach identified by Franklin and Marsden (2015). In this way, projects have to find a balance between not including too many partners to dilute management and decision making, but be able to be flexible to bring in different partners when required.

Communication between partners and staff

There was a gap in communication from project management to operational staff, with staff identifying a need for partnership meetings involving all staff. These staff meetings could have been used to plan activities, work through practical issues such as finance, identify training needs, and also increase the transparency and accountability of activities that were not working effectively. For instance, partnership meetings could have been used to increase the accountability of the GreenCare activity on why it was not connecting with other activities which were successfully engaging volunteers and with local residents.

Such meetings could have also helped identify where local residents could have benefitted from being involved in the portfolio of different activities, such as volunteers who could have benefitted from energy monitors.

Mark identified his level of frustration at the challenges caused by the lack of communication:

Mark: 'I think the main problem with the project for me has been the lack of communication among the different partners, the lack of regular meetings and communication. I hear that people are unhappy about things, through the grapevine rather than, I'm not happy about that, what can we do to make it better. I think if we talked to one another, about what our aims are and what we're trying to achieve – it would be much simpler than, so and so says that so and so isn't happy'

Interviewer: 'Anything specific?'

Mark: 'stuff like I am doing the eco-house garden with the volunteers and I hear that Jane's [Probe] not happy on how's it going – I mean I'm dependent on Probe to provide [materials] so if I could have a chat with them about that, were having to rustle stuff up – I'm borrowing Val's drill, I'm bringing bits from my house, I'm still waiting for compost which has been 3 months in coming now...I'm not particularly happy about that, but I've made point on an email, and then I hear that Jane's not happy – but if we could sit round a table, to make it better – it just seems like a simple grown up thing to do'.

Interviewer: What happened to the Monday meetings?

Mark: 'Well they've been mooted and a couple have happened, over the course of 2.5 years'.

Mark and Kate also identified how poor communication could also become a safeguarding issue when working with vulnerable residents and not sharing information on their needs (although health and safety emerged as an area where the project performed particularly well in discussion with volunteers). Discussions of complex health needs could also enable staff to discuss and communicate additional training requirements. In addition, as gender

issues became more apparent at the farm in the summer of 2015, staff meetings could have been a good opportunity to raise issues and discuss responses.

Mark then linked issues around communication directly to long-term sustainability:

‘there’s a constant lack of cohesion about the way we all work together, so I think we always feel uncertain and that’s not good really – it’s not good for the sustainability of the project and it’s not good for staff motivation’.

Project decision making: project flexibility

Stakeholders identified that the GP project management took a pragmatic approach to tailoring activities to meet needs of the local community. For instance, the community energy activity was expanded to include advice on reducing tariffs and switching suppliers, and the Urban Agriculture (UA) activities were tailored to involve volunteers and then their input to develop a range of other activities that reached out to the local community, such as the Family Growing Project (FGP). This indicates that GP project managers were focused on the needs of the local community (MacMillan 2015).

GP staff identify that they were able to adopt a pragmatic approach because of a flexible approach from the Big Lottery Fund (BLF). BLF had developed CLS projects as test and learn projects, and approved project plans were not rigid plans. This meant that project targets were not rigid targets and could be amended due to changing priorities and learning. For instance, during the course of the project staff identified that a key benefit of this was that the BLF allowed the project to move away from waste recycling activities after the survey identified very high rates of recycling in the local area. Staff also described how the flexibility allowed the project to try innovative activities, with this flexibility resonating with the findings of Petchey et al (2008) that the BLF provided a safe space for charities it funded.

This flexibility resonates with research findings from Williams (2003) on the need for tailored approaches to working with vulnerable people. Mark describes the benefits of flexible plans when engaging with and working with vulnerable people:

‘I guess that’s the problem with targets and outcomes, sometimes projects want really quick outcomes – everybody’s going to have their own pace – some people

might jump in and benefit straight away but other people it can take a long time to work with people’.

However, there was considerable debate around the consequences of how this level of project flexibility was managed in the project. Some activities, such as UA thrived on the flexibility, developing a range of unplanned activities including the Family Growing Project. Mark, identified that:

‘It’s a double edged sword, it’s brilliant – it gives us confidence that people trust us to some extent and it means if we can see an issue, a problem or an opportunity we can address it and tailor our activities to address that situation – if it was less flexible it would have been harder to get the same number of volunteers on board, it would have been harder for us as staff to maintain our enthusiasm’.

However, Probe project coordinator, Christina, who then left in mid-2014, identified the need for ongoing project planning and communication to develop more detailed plans:

‘It’s been a bit of a learning curve – it’s been a random thing that we took on, and there wasn’t a really a plan...we need to sit down actually and think what are our actual aims’.

Kate, the project gardener reflects further on Mark’s observation that it was a *‘double edged sword’*:

‘I feel a lot of it was driven from me pushing for, rather than the management getting everyone together saying this is our strategy and goals, it was like driven from pushing for things rather thanin one way it has benefitted because it has allowed me to come up with my own ideas, so I got to come up with the mentor project and then get that agreed – it’s got its pros and cons really, it has allowed the project to evolve on its own’.

Kate’s quote above identifies the role of the individual staff member being able to push for activities. This brings a range of questions around who has the skill and confidence to suggest activities, who makes decisions, who will be listened to, and whether staff have the potential to develop effective agency (Cleaver 1999, Kabeer 1999, Nunan 2010). For

example, Nikki (the Probe staff member responsible for the smaller FGP), revealed a lack of established plans and a sense of powerlessness to resolve this:

‘You see I don’t know what the budget is, I was originally told 3 visits that was for 20 families, but now it’s only for five families, if it’s money dependent 5 families can have more visits, but I don’t know... I just need to get them all set up this Friday first and then I can actually maybe think about it. If we can get the event done on here it will be a good step.... I don’t know what the thing is... I don’t know’.

The flexibility was particularly loose and counter-productive relating to the GP activities that failed to reach out into the community including Green-Care and eco-enterprise activities. Another CLS project stakeholder commented that potentially the BLF was too loose and allowed some activities to fail as part of its flexibility approach, citing an example of another CLS project that had been allowed to focus solely on UA activities and that some CLS activities were could be failing because of poor performance rather than because they were not relevant to local people.

The poor performance of Green-Care also relates to a range of other issues which are indicated in the following quote:

‘So it [Green-Care] was always going to be hard but there is avenues they could go down, they could have looked into what’s out there already, talked to social workers etc – they could have gone down that area, whether they did I don’t know, no one seems to know what they did in the first year to be honest’. [Maryanne - Project administration officer working with EMS].

In contrast to waste recycling, Green-Care and eco-enterprise staff did not conduct research into community practices and priorities to refocus their activities. The eco-enterprise activity did refocus late into the project to conduct environmental business training to start-up businesses through the Prince’s Trust. However, the activity lead was not able to nominate participants to interview to discuss impacts.

Staffing arrangements and performance

Staffing arrangements and performance also had a major influence on effectiveness. EMS initially had two staff members working across different activities, but roles and

responsibilities were unclear and by the beginning of year two had dedicated one full time staff member to each of its activities: Mark dedicated to UA and volunteering and Peter focusing on energy monitors.

However, the Probe management identified that it had limited the scope of UA activities by only employing one part-time gardener.

Jon (Probe manager): 'I think one lesson we learned, we didn't put enough in the budget for the gardener'.

Jane (Probe deputy manager): 'There wasn't sufficient resource. The practical activity always takes more time and resources than you think it is going to'.

The lack of time of the gardener also affected the support they were able to provide to the smaller growing project, with Probe recruiting a staff member with skills and experience in community engagement, but who did not have gardening skills. The gardener's part-time role could also be seen to have knock-on effects for sustainability as the staff member was only able to focus on immediate tasks and not post-project planning. Probe also committed very few staff resources to the eco-house and eco-enterprise activities. In relation to eco-enterprises, Jon identified that 'we were optimistic about how we would deliver the business.....but I think we didn't focus on that as much as we might'.

Staffing performance also impacted on the effectiveness of activities. In contrast to the low staff Probe dedicated to the eco-enterprise and eco-house activities, the Freedom Centre had two members of staff focusing on Green-Care. Although I did not conduct a review of human resources records, staff performance also emerged as a key theme. In some cases staff worked particularly hard to develop activities and outreach into communities. This is particularly clear in the UA activities involving EMS and Probe staff Mark and Kate. In other cases, staff focused less on community outreach. For instance, staff performance issues were raised as a reason why the community energy activity had not been as proactive as the UA activities, such as relating to lack of work with community champions and lack of follow-up with some energy monitor participants. In Probe, a range of issues were identified by staff including Kate, Brendan, Nikki and Christina on poor communication between management and staff, with both Nikki and Christina leaving

during the project. This poor communication was seen as a management performance issue.

Financial management

In addition to human resources, I was not asked to monitor and evaluate the financial arrangements of the project and therefore could not compare the different activities in terms of expenditure. Some staff did discuss financial considerations during their interviews, for instance, EMS project administration staff identified that BLF were timely and transparent in providing project funds. Two staff members, Nikki and Mark raised issues around transparency of budgets. Mark identified that Probe were slow releasing funds for his UA activities and he also indicated he needed to confirm funding with Val before pressing ahead with training. Nikki was clearly not in control of any budget for the smaller FGP although there were other issues affecting this activity, including lack of support for a relatively inexperienced member of staff. Lack of finance did not emerge as a critical issue restricting activities until some activity managers identified that they ran out of money towards the end of the project. For instance, EMS was no longer able to meet the costs of volunteers to attend the Horticulture College and Probe Ltd ran out of funding to continue activities on the eco-house, such as thermal imaging to demonstrate insulation.

Only one staff member raised the fundamental issue of whether the project realised value for money, although this was raised as more of a discussion point than a clear opinion. This lack of discussion resonates with findings from St Clair et al (2017) which researched the impacts of another BLF community gardening project and identified that such projects have difficulties demonstrating value for money.

Complexity and relevance of activities

Chapter 4 compared research into different approaches to community-focused sustainability activities. Some activities emerged as more complex than others in terms of skills, technology and resource requirements, and could be argued to lean towards 'innovations' rather than sustainable place-making (Hargreaves et al 2013a, Franklin and Marsden 2015). In addition, to loose governance and staffing issues, it was also indicated by project management that Green-Care, eco-enterprises and the eco-house proved too

complex for the GP project. For instance, Alistair (the GP project enabler, who also supported two other projects) argued that in his view the UA and community energy activities were successful because they were clear and met the needs of target groups. In contrast, Alistair, who is also a business adviser, identified a fundamental problem with the CLS eco-enterprises strand:

‘I am heartily sick of well-meaning public funding bodies, saying they will give funding to support businesses, in regeneration type areas, as long as they’re a social enterprise, or as long as they’re a green enterprise. It’s hard enough to start a business, and make a success of that business, without having to jump through hoops, and tick lots of boxes, for someone’s funding requirements. And why the bloody hell should someone who’s on benefits, and living in a social house, be expected to run a social enterprise’.

Instead of focusing on outreach to the local community, Green-Care tried to focus on software development and e-learning through establishing high internet connectivity for local carers through a ‘walled garden’ working with a communications organisation. Unfortunately, the partnership work did not progress and the walled garden was never developed. Staff also argued that Green-Care was restricted by the need to navigate complex healthcare requirements. The activity managers stated that after the GP project finished, it was continuing to work with local IT and healthcare providers to continue software development (with the Freedom Centre as a stakeholder), which staff identified could bring future benefits, but when I asked to interview stakeholders to corroborate progress, I was not able to line up any interviews.

Part 2: Governance and approaches to engagement and participation

Engagement of communities in action against climate change was one of the key aims of CLS projects. This aim resonates with research arguing that community-level sustainability initiatives should be supported to increase engagement both to meet the scale of transition needed to tackle climate change and to involve local communities in providing solutions (Holland 2004, Bradbury and Middlemiss 2015, Howard and Wheeler 2015). Ensuring engagement and participation of local communities are also considered key ingredients of legitimacy in a community focused approach (Choudhury and Ahmed 2002, Peck 2015).

The GP project plan identified a focus on reaching marginalised and vulnerable people, with the terms used interchangeably. In addition, the project plan contained a narrative to help elderly people and to involve younger people in activities. However, its approach was to define anyone living within the two target wards as being vulnerable to poverty. Margaret (NEF), identified how this approach was also adopted by the other CLS projects and supported by the BLF:

‘Projects have argued that where we are based, who we are working with, people are challenged by multiple things, areas of social and economic disadvantage, so all these populations are vulnerable’.

Most activities were not exclusive to the two target wards. Neighbouring Marfleet became an unofficial target ward, and people from other wards were also welcome to participate in activities if there was enough space. Initially there was caution about being too open, with Probe management staff being particularly cautious based on previous experience of managing a BLF project. However, in the CLS projects BLF showed the same type of flexibility to target groups as it did with other aspects of the project activities.

The GP project had a deliberate focus on activities that would benefit the local population as a way of engaging local residents, showing a strong link between engagement and communication of potential benefits. The GP project particularly focused on saving residents money. This is in line with research by Seyfang et al (2013) which identifies that many community energy projects communicate aims focusing on saving money rather than reducing CO₂ emissions. However, the results of the GP project show there is a clearer connection between the energy saving activities and saving money, than there was with UA activities and saving money, suggesting that local residents engaged with UA activities for a wide range of personal and community benefits (Bhatti et al 2009, Miller 2015).

As well as working towards the types of benefits as described in chapters 7 and 8, the different project activities practised different approaches to engagement and participation. In terms of initial engagement, EMS made exhaustive efforts to engage people in UA and community energy activities through community focused activities. EMS also worked with local civil society organisation (CSOs), Registered Social Landlords (RSLs) and other organisations working with vulnerable people and provided information on the

projects. For instance, the community energy staff member worked closely with Pickering and Ferens (P&F), and for UA activities, the refugees joined after contact with the Refugee Council, Arthur and Tony joining from a work club, Graham joining from Mind, and Paul joining after referral from his Community Psychiatric Nurse.

In contrast there were very few attempts to engage with local residents in delivering the eco-enterprise, the eco-house and Green-Care activities. Although, towards the end of the project the eco-enterprise project engaged with local people through the Prince's Trust. These different approaches reflect project flexibility, in line with its governance arrangements, but also suggest the project partners could have been focused on identifying and implementing appropriate approaches. For example, EMS conducted a survey of waste recycling to identify potential activities. Approaches to engagement and participation and comparisons between the UA and community energy activities are explored in more detail below.

Engaging with vulnerable people: exclusive to be inclusive?

The flexibility of the project plan and its broad definition of target groups, and the flexibility of BLF resonated with the values of GP staff who were particularly focused on an open and inclusive approach to engagement and participation, rather than exclusively targeting specific hard to reach groups (Staehele 2008).

The UA approach was successful at both engaging and ensuring participation from many vulnerable people, with volunteering activities in particular providing a platform for ongoing participation. In addition, volunteers stressed how they felt safe and well supported during activities.

However, there was regular feedback from participants that more could be done to engage with different target groups. For example, feedback in the Festival identified there should be more deliberate efforts to target young people, homeless people and black and minority ethnic (BME) groups. In addition, women volunteers at the farm identified there could be more women only sessions, particularly when volunteering became more male dominated. Staff also identified it was difficult to get young people involved at the community farm. Christina from Probe identified that: 'The consistency of young people attending the sessions. We've always managed to get what we need to get

done, but it would be better if they came to every session and not just dip in and out, I don't know how to solve it'. Agyeman (2008) identifies an important consideration is whether CSO staff are representative of the population they are trying to work with. In the GP context all staff were from white backgrounds and were aged 30 or over.

There was opposition from UA staff, particularly Mark but also from Kate, to hold sessions aimed at specific target groups due to both ideological reasons and also practical reasons such as restricted access to the farm. In the following quote Mark explains his ideological approach:

'The reason we've not done more on segregating people onto different sessions, a lot of the people in these communities are isolated, that's what we expected and that's what we found when we started working for them, so why suggest that they're only suitable to mix among certain similar types, why not give them the opportunity to mix as wide as possible...there's been – I wouldn't say racist or homophobic attitudes, I mean that's too strong but some of the volunteers are shall we say less worldly than people I've worked with in the past, so it's a good thing to get younger blokes mixing with middle aged women, to get African dads mixing with people who have been born and bred in east Hull, it's good to get diverse groups mixing together, it expands their minds a little bit and gives them a new perspective on things – I don't think it's a good idea generally to segregate different people into different groups, unless you've got a family group with really young kids'.

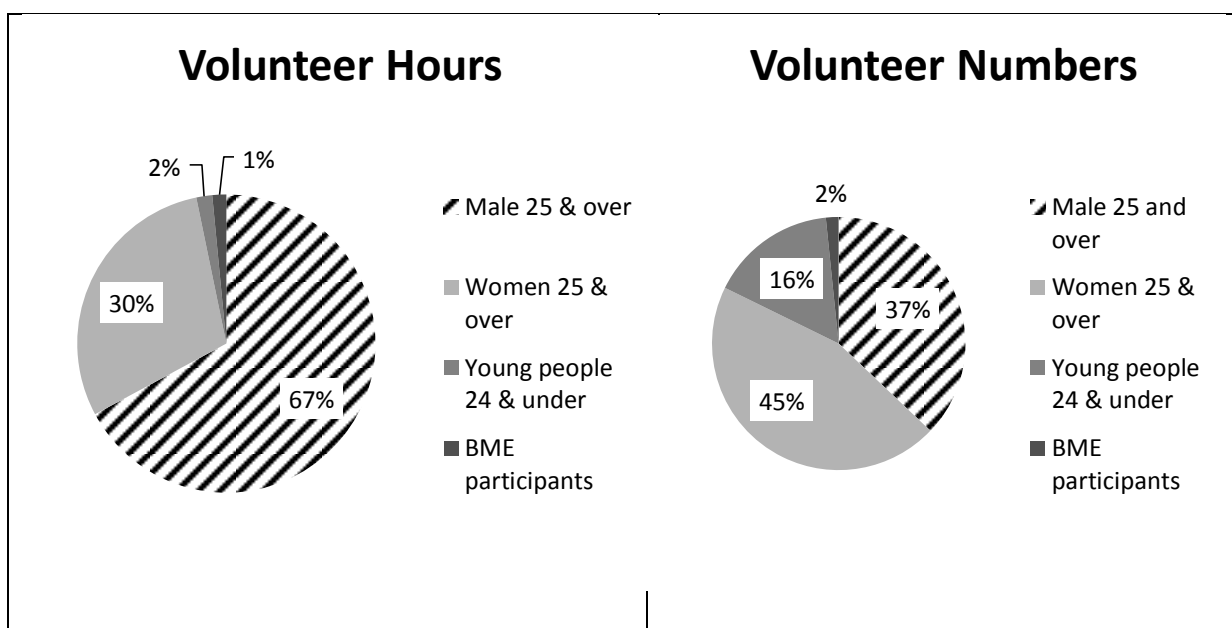
In this well-reasoned argument, Mark uses the powerful term of 'segregation'. This quote identifies that Mark has further aims to get people mixing together, and that in his view this aim potentially overrides activities to specifically target marginalised groups. This approach can be seen to have benefitted a number of people including males with mental health challenges or learning disabilities, who can be considered hard-to-reach. Mark also identified that if the project was to work on a formal social prescribing approach, he would not want to run separate social prescribing sessions from regular volunteer sessions.

However, analysis of UA volunteer hours and numbers identifies there is a clear difference in the input of white males compared to women, with very little input from BME populations or young people (18 to 24), as shown in figures 8.1 and 8.2. The figures also reinforce the finding that there have been a higher number of women participants, but

they have not input as many hours as men, partly due to caring responsibilities, the type of tasks, but also potentially due to a lack of specific sessions. For BME participants, there was only one regular volunteer, Gloria, who later dropped out due to caring responsibilities, although I was not able to secure an interview with Gloria after she dropped out to find out any more information. East Hull is an overwhelmingly white working class area (in a city with a 90% white population) but there are an increasing number of BME residents living in the area.

Figures 9.1 and 9.2 are produced on known volunteer ages with some cases without known ages excluded – this is a fair reflection as many of the volunteers with unknown ages will only have attended one or two sessions and not filled in their details.

Figures 9.1 & 9.2) Input of volunteers by specific groups (hours and numbers)



The community energy activity also had difficulties reaching certain populations including young people and large families. Approximately 15 of the 475 monitors were provided to young people under 25, and only 6 people identified themselves as non-white British. The project did not routinely collect information on family sizes but in my interviews only two out of 40 interviews identified themselves as low income high expenditure families. The project was successful in reaching other vulnerable residents including older people, the long term sick and unemployed as identified in chapter 8, with 65% of energy monitors going to people self-identifying in these categories. In interviews, many vulnerable people identified how they had found it difficult to access any other support or good quality

information from other sources including HCC, government schemes or from energy companies. Since the GP project, EMS has developed a further focus on those vulnerable to food and fuel poverty based on its interventions in the GP project.

Whilst EMS acknowledged it had difficulties engaging with young people aged 18 to 24, the project made a clear decision to target young people below 18 through working directly with schools and through the family growing project, although this was through the UA and not community energy activities.

Importance of coherent communities

There were differences in the community assets of different locations underlining the link between strong community assets and the potential for engagement (Krasner & Copeland 2004, Larner and Craig 2005, Matthews 2012). In Southcoates East, EMS particularly focused on engaging people through the Freedom Centre, which is a community hub. It proved more difficult to target people in Longhill, across both activities. Stakeholders identify that Longhill is a less tangible community than the Preston Road/ Southcoates East area and there was no equivalent community hub to the Freedom Centre. The East Hull Community Farm (EHCF) is in Longhill but few local residents use it. In addition, there were less effective community outreach focused organisations in Longhill compared to Southcoates East. EMS project manager Val stated that: ‘I think we still struggle with Longhill, because it’s so wide, and it’s got quite a lot of different needs in it. And a lot of residents do work at Longhill, so we wouldn’t necessarily engage them during the day’. Staff also suggested that they were more successful working with people from Marfleet than Longhill because it is also regarded as a more coherent community and has an established community centre, despite not deliberately targeting this ward. Marfleet is also closer to Preston Road and the Freedom Centre complex. Levels of engagement are shown in Table 9.1 below which shows participation from each of the target wards, showing lower levels of participation from residents of Longhill.

Table 9.1) Participation in UA and community energy from target wards

Wards	EMS	%	Vol numbers	%	Vol hours	%
SCE	150	32%	7	6%	1072	22%
Longhill	117	25%	7	6%	523	11%

Marfleet	65	14%	9	8%	955	20%
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Ongoing participation

In terms of participation, UA activities had a strong focus on engaging volunteers and participants on a continuous basis whereas community energy activities focused on engaging a large number of households, but with limited ongoing contact. Consequently, the community energy activity had gained greater outreach in terms of numbers, but there was little scope for continuous follow-up work including checking progress and collecting information on savings. There were exceptions and from an M&E and research perspective, it was far easier to obtain information from residents of P&F or participants of UA activities who had obtained an energy monitor, showing the benefit of continuous engagement both in terms of learning from activities and engagement in activities.

The ongoing development of both UA and community energy activities incorporated learning and flexibility in approaches to engaging participants (Williams 2003, Matthews 2012). For instance, the UA activities identified that approaches to training were not creating lasting outcomes and developed the Family Growing Project in response. The community energy activity was more ad-hoc, but towards the end of the project staff recognised they developed stronger community links through working with two RSLs, including P&F, although too late to develop a new round of partnerships in the GP project.

The focus of the UA activities on working with volunteers on a continuous basis also brought many challenges relating to the ongoing engagement of vulnerable people. Staff identified a wide range of challenges including volunteers dropping out of activities when their own individual circumstances change, volunteers requiring ongoing support to stay involved in activities, and being able to respond if volunteers have health or well-being issues. These issues can be particularly relevant in deprived areas where volunteers are more likely to be marginalised in some way, such as being long term sick or disabled, having caring responsibilities, or being unemployed and needing to meet benefit requirements such as signing on or attending interviews. Mark and Kate were particularly flexible in responding to volunteer issues. This is evidenced by volunteers in the findings on UA activities. A number of stakeholders, including BLF, NEF, and the GP project staff

argue for the need of skilled and experienced staff to manage volunteer inputs. This is also an important consideration in terms of sustainability once the project has completed.

Participation in decision making

Howard and Wheeler (2015) indicate the advantages of grassroots communities being involved in developing their own solutions as part of a community development approach, indicating a need to be involved in decision making. However, the GP project did not focus on involvement of participants in decision making. The initial project plan was developed with limited community-level input, although the survey indicated high levels of interest in UA activities and some interest in volunteering. Once activities were planned, the UA activity had the most ongoing participation in terms of volunteers shaping activities, such as the FGP, but did not involve volunteers in identifying which activities should continue and how. Lack of involvement of volunteers in decision making was a deliberate decision due to a range of issues. The main issue was that UA staff identified that they were not responsible for project decision making themselves, severely restricting the potential for the staff to then involve volunteers. In addition, both staff and volunteers argued that many volunteers did not have the time or skills to input into major decisions. Many volunteers enjoyed relying on staff to develop the different activities for them to participate in.

Negative consequences from a lack of input into decision making from both staff and volunteers crystallised at the end of the project when there was concern over whether volunteer focused activities, including the community garden, would be able to continue. Long term sustainability of activities is explored later in this chapter.

9.2) Effective governance: the influence of BLF and the role of project intermediaries

A key aspect of the project governance was the relationship with the donor, the Big Lottery Fund (BLF) (Petchey et al 2008, Kirwan et al 2013, Creamer 2015). This relationship was important in terms of ongoing management of the project and making sure the project met ongoing donor requirements, including around reporting, use of funds and delivering project activities. The relationship was also essential in terms of partners positioning themselves to be able to apply for new funds after the project had finished.

BLF has been identified as the key donor towards many English UA projects in particular, supporting a growing number of civil society projects and targeting disadvantaged areas (Milbourne 2012, Kirwan et al 2013). However, it is also argued that the BLF, along with other donors, support projects on relatively short term project cycles which impact both on project outcomes and their long-term sustainability (Kirwan et al 2013, Creamer 2015). In addition, some BLF projects have focused on developing entrepreneurial social enterprise type projects, which it is argued do not reach the poorest and also negatively impacts on long-term sustainability if projects are not able to generate their own income once funding finishes (Dey and Steyaert 2010, White and Stirling 2013, Tornaghi 2014). These potentially negative donor impacts on projects are particularly important to consider as BLF emerges in the literature as the key donor in England and therefore projects have little room for manoeuvre.

In contrast to the influence of donors the literature has a more benign view on the potential influence of project intermediaries, with project intermediaries viewed as potential providers of learning and support (Kirwan et al 2013, White and Stirling 2013, Creamer 2015). BLF used project intermediaries to provide support to the projects and also to coordinate learning from projects and establishing a learning partnership including NEF, Groundwork and the Energy Saving Trust. The CLS projects were the first time that BLF had used outside intermediaries to provide learning and support rather than use M&E directly from projects.

Exploring project learning and the role of project intermediaries

The role of each intermediary organisations role was not always clear. NEF were focusing on capturing overall learning, Groundwork also captured overall learning but also developed a focus on UA and community outreach, and GP had some contact with the Energy Saving Trust on the community energy activity in the last few months of the project. An example of the overlapping roles was that Groundwork and not NEF presented the overall learning from the CLS projects at a series of CLS learning and celebration events in late 2016, including one I attended in October 2016. In addition to the learning partnership, each project was also assigned a project enabler, and the GP project was assigned Alistair from a business advice organisation. Val (EMS project manager) explains how she saw the different organisations inputs:

‘Having an enabler worked well. Alistair in particular has worked well. More so in the early times when he could spend more time with us, he could come in, parachute in and give his opinion as an outsider looking in, because as we get so immersed in it, the day to day delivery of it, sometimes we don’t see it and that’s what Andrew’s here for, and he’s a business development person anyway. NEF’s the think tank, who don’t really engage with the community, but they’re the ones who write the reports. And periodically we go to Groundwork’.

In the above quotation Val indicates a range of issues. One is how Alistair provided useful and practically focused advice, but then Val also indicated that his role changed to becoming more distant from the project. In the quote Val also indicates a potential disconnect between NEF and the work on the ground and confusion over the role of Groundwork.

Alistair also provided an example of some of the confusion around the different roles.

‘The only thing I would comment that is slightly strange is from a reporting point of view, I’ve been reporting into Groundwork and copying in Margaret at NEF – she is my main contact there. But Val has been reporting directly to Big Lottery - so there have been occasions that Groundwork have asked me for something from Val, but I’d have thought Jan would have reported directly to Groundwork, but she’s not been – so I’m not quite sure how that has been set about, because I’d have thought that Groundwork would have wanted the same reports from Val as Lottery has had and then they would have been able to tie it all together and send it to Lottery, so that’s been a bit of a strange one’.

Alistair’s quote also indicates how confusion between roles could have impacted on providing learning with unclear reporting lines and confusion around which organisations required or had reviewed what information.

This learning approach benefitted the projects in a range of ways including providing flexibility for the GP project to develop new activities such as the FGP, and also use learning to prioritise activities, including a shift in focus away from waste recycling where learning identified this was not a priority (Petchey et al 2008). The flexible approach also allowed projects to tailor the production of M&E information to their own requirements

such as if they wanted to focus on a particular activity. However, some stakeholders felt this approach also gave too much room for projects to allow activities to fail, such as Green-Care, or move away from activities that became more difficult. There were no mechanisms to make projects accountable for failed activities.

The approach to learning could be seen to negatively affect projects in other ways. Project managers identified that the use of project intermediaries created distance between the projects and BLF including a lack of clarity of what to report and who to report to. The focus on flexible learning translated into few M&E requirements and there was very little critical feedback on the M&E reports produced (Petchey et al 2008). There were also very few formal opportunities for sharing constructive learning between projects, due to a range of factors including loose M&E requirements and projects were managing feedback with a view to obtaining further funding. In addition, none of the organisations in the learning partnership visited a GP project activity to see how the project was working, although Groundwork facilitated an end of project learning workshop. Alistair did visit the project and its activities a number of times, and reported to Groundwork, but his role was reduced during the project.

Where I did communicate with NEF I felt they were looking for information to develop pre-determined narratives rather than learning from the ground. In particular there were tensions in relation to reporting on behaviour change. NEF identified that the focus of its learning should be whether CLS projects achieved pro-environmental behaviour change and at what scale. Initially, NEF discussed behaviour change in terms of whether participants involved in activities then took wider actions to reduce carbon emissions, such as reducing transport use. NEF later developed specific behaviour change indicators directly related to the main activities of CLS projects in the areas of developing local food networks, developing green spaces, reducing energy usage, and increasing environmental education through schools. However, these indicators did not include considerations of how activities including community gardening, which had more of a social focus, contributed towards behaviour change. This led to questions on what kind of behaviour change NEF was looking for from community gardening projects and Margaret (NEF) identified that:

‘for me this is about spill-over environmental behaviours, and that’s something that I have very little info from. So if I grow my own food, do I then behave in different ways towards other things. Or do I buy food differently. Or is this a leisure activity that gives me a partial amount of my food, helps me with engage with my neighbours, which are all good things, helps me feel good, healthier – but then my behaviour is some way isolated from how I might travel to work, how I might save water – does it lead to anything else’.

This quote identifies an important disconnect between the reality of CLS projects and a focus on behaviour change, particularly as all 12 CLS projects included UA activities, and one project focusing solely on UA activities. For instance, community gardening activities may not be considered effective if they do not lead to behaviour change, even if they have resulted in a wide range of social, economic and local environmental improvements.

During the research, GP staff did not identify behaviour change as one of the key aims or outcomes, behaviour change was not identified in project plans, or discussed by staff when describing their activities and impacts. In addition, GP staff did not try to incorporate any education or training on climate change in its programme. In this way, the focus on behaviour change can be seen to have been imposed by NEF and Groundwork after projects had been developed, reflecting issues with donors (in this case intermediaries) imposing their own frameworks on projects (Creamer 2015, Peck 2015). This resonates with comments from the Val (EMS project manager) that it was very difficult to collect information on behaviour change as the concept was too far removed from what was happening on the ground.

In addition, some stakeholders identified a tension between trying to involve people in positive projects that benefitted them, to then trying to change behaviour. This resonates with Hargreaves et al (2013b) which identified some hostility from smart meter users to questions over whether they had reduced energy consumption. For instance, one stakeholder at a CLS learning and celebration event questioned whether the focus on behaviour change makes people in deprived communities then feel ‘under attack’, especially when they may have fewer emissions than the more affluent communities (Ambrosius and Gilderbloom 2011). A focus on trying to change behaviour could lead to increased reticence and distrust among more marginalised residents. Increasing distrust

could make it more difficult to engage residents in marginalised communities, with engagement a key challenge for many CLS projects including the GP project in Hull. For instance, Alistair (project enabler) didn't agree with the focus on behaviour change:

'there's a danger out there that achievement of the project's agenda is used to try and influence the behaviour of participants. Far better to see how your agenda benefits others, help them see how your agenda benefits them.. so that you can achieve what you're looking for as well'.

Alistair's argument to focus on the needs of residents is also in line with good practice approaches to community development (Howard and Wheeler 2015). However, NEF were slightly dismissive of a focus on community development, suggesting this was a tool for engaging people in behaviour change rather than as an outcome for CLS projects:

'I suppose the takeaway I have from the projects, is that food or gardening is an easier way to engage people in doing something that they want to do, it's easier to explain, and it's pretty close to community development – so you use it as an engagement technique as a vehicle to have a bigger conversation or get people engaged in, talking in groups, people feel more comfortable doing positive action'.
[Margaret, NEF].

At a CLS celebration and learning event in October 2016, there was little specific feedback on whether any projects had achieved behaviour change across any activity. NEF and Groundwork identified that there had been little successful M&E on behaviour change and suggested that BLF and individual projects should have developed stronger theories of change and M&E frameworks. However, the lack of M&E reporting also suggests a disconnect between projects and the focus on behaviour change.

In addition other examples of a lack of connection between NEF and project realities became evident. In one case Margaret (NEF) questioned why the GP project was not working in flood affected areas: 'Is it working in flood affected areas? I would want to know why if it wasn't?'. However, work in flood affected areas had never been included in GP project plans. In another meeting NEF identified they had not read the latest M&E report.

BLF themselves identified issues with the learning approach and moved the learning role in house for the final year of the CLS projects: 2017 (although a number of projects including GP had completed). In addition, during the learning and celebration events BLF presented a range of key learning points that were supported by project stakeholders. One key area of learning was that UA activities were particularly successful in bringing benefits to individuals and communities, including relating to health and well-being, but they need external funding to continue and be sustainable. BLF also concluded that projects had implemented activities that resonated with local people, and this had been able to begin conversations on climate change and behaviour. In this way, BLF acknowledged the different barriers CLS projects faced in trying to change behaviour, but also identified that the CLS projects could provide a platform further work in this area.

BLF also announced new funding directions, including a focus on supporting local communities with local place-based partnerships and professional support from CSOs to implement projects including local food projects. In addition, there would be more connection between BLF and projects. Val (EMS project manager) indicated that BLF is moving towards closer relationships with civil society and EMS is having closer contact and more ongoing dialogue with BLF on new project plans. BLF has also changed focus to fund growth of existing projects rather than new large scale projects that require large scale transitions for CSOs.

9.3) Fragile sustainability: the long-term sustainability of activities and outcomes

Analysis of long-term sustainability of the Green Prosperity project and activities is explored in three parts. The first part describes the realities of searching for funding and impacts on staff and participants. Part 2 explores the sustainability of the volunteer group as an example of how the project partners and participants worked together to ensure survival but also describes the serious challenges faced. Part 3 tracks what happened to each of the Green Prosperity activities and analyses why some activities were successful in surviving and continuing while other activities did not.

Part 1: Post project sustainability and the search for funding

The last few months of the project were marked by considerable uncertainty about what would continue after the end of the project in 2015, with planning affected by both internal governance factors and the wider funding environment. Staff were concerned about the continuation of activities, and also their jobs. Volunteers were concerned about what would happen to their hard work, and also whether the positive impacts would last. These concerns dominated the research conversations towards the end of the project.

There was little planning for sustainability and no exit strategy was developed. Stakeholders identified this as a potential consequence of a 3-year project time-frame. With the first year focused on planning and setting up and two years focusing on delivery, little room was left for post project planning. In contrast, some Big Lottery Fund (BLF) Communities Living Sustainably (CLS) projects worked within a 5-year time frame and included a period of project closure. When I asked Val (EMS Manager) whether a 5-year project would have been better, Val indicated that in a 3-year project, less funding is allocated to running costs and overheads and more funding is directed to implementing activities. This view suggests there is trade-off between maximising the potential to implement project activities and planning for sustainability.

At an activity-level, the project flexibility and willingness to support new activities meant that it was not possible to know in advance which activities would be successful and provide scope for sustainability, and which activities would not work. For instance, the project plan had not specified the involvement of volunteers in the community garden or the implementation of the Family Growing Project (FGP). In the early stages, GP stakeholders had been particularly excited about the innovative Green-Care activity but by the end of the project there was no enthusiasm to obtain funding to continue any elements of Green-Care. Therefore without project flexibility, there would have been fewer effective activities to try and sustain after the GP project completion.

The GP project focused on finding funding to continue elements of the project. From late 2014 onwards the GP project began conversations with BLF to secure continuation funding of approximately £130,000, which was equivalent to the difference between the GP project's expenditure and the £1m CLS ceiling. However, BLF did not provide further funding, and wanted each CLS project to finish while it considered its next funding

approach. With some CLS projects scheduled to finish in 2017, this would mean no immediate funding through any CLS follow-up. This was in contrast to how the BLF had previously worked with Probe on a UA project where BLF had provided approximately £250,000 in additional funding to help work towards post-project sustainability. It is not clear why these decisions were made in the way they were, but it may have been the lack of connection between project outcomes and the focus of NEF on behaviour change had an impact on these decisions.

As identified earlier, BLF dominates the funding picture for English CSOs. Without BLF funding, the GP management tried to apply for smaller pockets of funding from other sources to continue GP activities, although no funding had been guaranteed by the time the GP project finished. GP project managers described that the funding climate had deteriorated significantly for CSOs since the election of the coalition government in 2010. Val identified that many established local CSOs had closed and the remaining CSOs were competing for reduced funding, including the GP partners competing with each other. For instance, Jon from Probe indicated that they 'didn't used to get out of bed for less than £20,000 to £30,000', but were now applying for any funding available. The GP project managers identified that there was a significant shortage of smaller pockets of money to fund specific activities such as to continue or expand the FGP. Project managers were applying for any available funding and largely responding to the donor priorities rather than being able to set their own priorities.

A number of studies in the literature, such as that by White and Stirling (2013), identify scope for CSO activities to be financially self-sustaining. However, while EMS managed to generate some income from UA activities, this was not sufficient to meet its operational costs and did not cover the costs of one member of its staff (Holland 2004, Tornaghi 2014). Stakeholders, including local GP stakeholders and the BLF indicated that being financially self-sustaining was not realistic for any of the CLS projects irrespective of their project length. In addition, EMS commissioned a social return on investment (SROI) audit to demonstrate the financial impact of its work with volunteers such as through providing community based mental health care. The SROI determined that for every £1 spent on working with volunteers, this produced a social return of approximately £11. The Green-Care project managers indicated that they felt their software development could become

an income generation tool but this did not prove successful, with this lack of success potentially due to lack of credible use of the software in the community.

The search for funding also impacted on project governance. The GP project managers identified that they were spending at least 50% of their time looking for new funding, while at the same time trying to finish the GP activities, with a long time lag between applying for and securing funding, and with many unsuccessful applications. The lack of funding was stressful for both staff and volunteers, affecting relationships between volunteers, staff, managers and the BLF. In terms of staff, this was particularly relevant for EMS staff who wanted to continue working on related activities, but whose contracts finished at the same time as the GP project. Probe project staff had all left or planned to leave by the end of the project. For instance, Peter, who managed the community energy activities, became very sceptical of contributing information to the CLS learning partnership towards the end of the GP project, questioning why the learning partnership was congratulating GP on data collected and asking for more, but at the same time not helping the project continue. Val also became disillusioned with contributing to CLS learning workshops while at the same time trying to find funding for her staff and activities.

For EMS staff member Mark, this lack of clarity also affected his work with volunteers, as describe in the following quote:

‘we don’t know what to say to the volunteers and that puts us in an awkward position and makes us feel like chumps really – because they’re working really hard for the project and the least they deserve is to know what’s going to be happening in the future – and I appreciate it’s not certain because there’s funding opportunities that may or may not come off and the farm, Probe and EMS it has to be a collaborative agreement, but if it’s just to say we don’t really know what’s going on but this is what we hope and this is what we’re working towards, even if it’s we don’t know – there should be some clarity about what we can say to people, it feels bad being asked questions and saying I don’t know what to say’.

The sustainability of the different Green Prosperity activities, including the volunteer group, is discussed in more detail below.

Part 2: Fragile sustainability: vignette of the volunteer group

UA staff and volunteers were particularly concerned about the future of the community garden and whether the volunteers would be able to continue to access East Hull Community Farm (EHCF) where the garden was located. Towards the end of 2015, there were no assurances from the GP management or the farm itself. The uncertainty was affecting both staff and volunteers. Volunteer Bel indicated that she had a range of new ideas for activities at the farm but that ‘unfortunately I think any such thoughts or plans at the minute are really up in the air because no one really knows what is going to happen to the project’. Volunteer Chris also mentioned that the potential end of the project would impact on the volunteers. ‘I think it’s a shame, it’s really sad. I know they’ve said this is the best year for volunteers and people getting involved and to cut it off at such an important stage, I think it’s a shame, a lot of people are going to lose out’. It was also felt it would affect some of the more vulnerable volunteers in particular. On one visit I arranged to interview Graham, a volunteer with mental and physical health issues. Graham’s mum, who was present in the interview, explained that:

‘he was very worried when you had these meetings that it was going to close down, when you rang he said – ‘why are you coming with me this morning?, is it going to close down?’ I said no, and I explained to him what it’s about’.

It was during this period of research that I got the most off-the-record comments from people frustrated at the lack of clarity and communication and upset by the prospect of the volunteer group and garden not being supported to continue. In one off-the-record comment, one regular volunteer argued that they had put so much effort into developing the community garden there was no way the volunteers would not find a way to continue working at the farm, with her anger focused on the farm staff. This resonates arguments by Holland (2004), Crane et al (2013) and Purcell and Tyman (2015) that community gardens create a platform for sustainability with volunteers investing themselves in the development of the garden through planning and planting for future seasons, and developing friendships. Regular volunteer Nancy stated: ‘we know from our little group what the high feelings are from what we’ve done, and the healing properties, and the friendships, and they’ll be long term friendships’.

It could be argued that there was more scope to develop the capacity of the volunteer group to continue activities as part of the GP project to help prepare the volunteers for when the project was completed (Holland 2004, Andree et al 2015, Parkhill et al 2015). The project did build the capacity of volunteers in gardening, but did not focus on building their capacity to manage their own groups. However, uncertainty over access to the farm meant that this could have led to disappointment and frustration amongst the volunteers if access could not have been secured (Parkhill et al 2015, Purcell and Tyman 2015). Mark also identified that the management of the volunteer group would need the input of skilled and experienced staff:

‘I can’t see them being run with volunteers, because certain physical resources are needed and a certain level of expertise is needed when it comes to advertising and safeguarding which the volunteers don’t have – we could train them up but again you’ve got the problem of people disappearing because they’ve got family issues, you’ve not got the same commitment as someone who’s tied down to a contract. So I think things could carry on but there would have to be some form of funding and some form of structure with paid staff to make it successful’.

Both Mark and Kate also had a strong belief in more managerial roles being for paid staff rather than volunteers, in line with arguments against the professionalisation of volunteer roles (Milligan and Fyfe 2005). Even though Mark and Kate have developed Down to Earth as volunteers they are looking for their roles to be paid as soon as possible through external funding.

In addition, volunteers wanted staff support to continue at the farm to help establish the volunteer group, help work through any difficulties with the EHCF management, to continue to support the volunteers, many of whom had specific vulnerabilities, and to bring in new volunteers. Tim spoke for many when identifying that he would wait to see whether to stay involved depending on the involvement of staff, and did not see himself as being part of any management team:

Interviewer: ‘Will you stay involved?’

Tim: ‘Depends on who’s running it, because we’ve got close to Kate and Mark, they’re two characters, without them it’s going to be a shame.’

Bel and Helen also indicated that although they were keen to help lead the new volunteer group they needed a wide range of continuing support including to link into networks and capacity building on how to manage a small group and conduct meetings.

The volunteer group in 2016

Both EMS and Probe were committed to continuing support to the volunteer group indicating the strength of social capital that had been developed between the volunteers and with the civil society staff (Franklin and Marsden 2015). Probe took the lead on applying for funding as there seemed to be an agreement with EMS for Probe to take responsibility, despite Mark still being in place at EMS and Kate having left Probe. I questioned this decision from an M&E perspective as Mark had provided really effective support to the volunteers, but Val commented that EMS needed Mark to support its new activities. There is also a possibility that a poor and deteriorating relationship between Mark and staff at EHCF also played a part in this decision.

Probe did not initially obtain funding for any staff support. However, Probe retained one of its UA staff, Brendan (who shared Mark's deep concerns about EHCF staff but had not argued with farm staff), to provide support to the volunteers and the community garden, but on a one day a week basis. Brendan initially helped the volunteers develop a name, constitution and nominate post-holders to be able to register as an association. Helen was selected as chair, Brendan as Treasurer and Bel as Secretary. This meant that none of the long-term local male volunteers, including Arthur, Tim and Derrick, became post-holders, although there was no ill-feeling about this. However, Bel soon stopped coming to the farm as she obtained employment as a carer and had also started her own allotment.

Problems did quickly develop. Local regular volunteer Derrick began to dominate planning and use of resources, despite not being a post-holder, causing frustration among other volunteers. When I visited in April, a number of volunteers mentioned this as an issue, including Helen the Chair who felt she was not being included in Derrick's plans. Arthur was also frustrated and suggested they could all have their own individual plots, which was against the communal ethos of the GP project. Derrick became a dominant figure as he was a skilled gardener, the most consistent in terms of attendance, and also brought his own resources to the community garden including seeds and hardware. Derrick also did

not seem concerned about making sure some of the more vulnerable volunteers felt included. For instance, Paul indicated that:

Paul: 'It's less organised I think, I mean last week I had nothing to do really, I was just stood about. I'd prefer it if there was someone in charge, handing out tasks.'

Interviewer: 'if you're stuck, who do you ask?'

Paul: I suppose Derrick really, he is basically in charge...but he doesn't really give you any jobs to do, he'll see you standing about, but he doesn't really give you any jobs to do. ...I don't know if that's because there's nothing to do.'

A key issue was the transition in proactive support from Mark and Dave to a less proactive approach from Brendan. When I mentioned these tensions, Brendan responded that:

'Yes [I'm] fully aware of the tensions, I have always made it very clear that it won't be a simple changeover. [I've] stressed the fact that I am not there as a leader but more as a facilitator and they have to figure it out themselves.'

Brendan wanted the volunteers to become more self-sufficient and operate with minimal support:

'One thing I am trying to convey to them and hopefully they are beginning to understand, they are no longer volunteers and as such they are not entitled to expenses, lunches and a leader! Generally they have accepted this very well and actually make sure no one is left out. Personally I am not too precious about the fact that some could leave, eventually they should settle down to a strong group. I think they have to be more focused on their aim and what they expect out of it? As volunteers they never had to bother about that, because it was sorted by GP, now it is up to them!'

However, the volunteer group was not ready for such a sharp transition and were struggling without the established hierarchy and support of the past. There was also clearly scope to intervene to improve how things were working. For instance, Derrick had been one of the volunteer mentors on the FGP, showing that he had a history of helping people, but there was little attempt to talk through the issues with him.

In addition, there was now no funding to pay for volunteers' lunches. Lunch had acted as a meeting point where staff and volunteers discussed different tasks. Without a natural meeting time volunteers were drifting in and out and not all volunteers, including Paul and Graham, had the confidence to ask for direction.

There was also a danger that the volunteers would leave this project and focus their time on other projects operated by EMS and Down to Earth. As a short term measure to help provide some direction it was agreed to have an 11am tea break to discuss the activities for the day. When I visited again in May, the tensions had reduced and numbers had stayed the same at around 10 per session, although another issue had arisen of tools going missing.

Successfully obtaining funding to support the volunteer group

During the summer of 2016, Probe and the East Hull Community Farm (EHCF) worked together and successfully obtained funding to employ a staff member to support the community garden and volunteers on a three day week basis. Management of the staff member and volunteers was also handed over to EHCF. Linda was employed in the staff position, having previously volunteered for the GP project as a volunteer for the Mental Health Charity Mind and the case worker for Graham. Linda started working regularly with the project in September 2016 and a focus of her tasks would be to increase the number of local volunteers, particularly from Longhill.

For my final visit in November 2016, I initially contacted Helen as chair to arrange to come and visit the farm. Unfortunately Helen had reduced attendance due to a range of personal circumstances:

'I'm sorry that it's taken me a while to get back to you. Things seem to have been very hectic recently, with my Uni [University] course and my daughter moving house. Plus I've been suffering from joint and muscle problems with my shoulder and knee..... It's been a bit of a tough year for everyone this year, and things have been held together by Linda in the last few months. I haven't been for a while because of my health problems and the other things I mentioned'.

With Helen unable to attend, this meant that none of the three post-holders was now attending, illustrating that formalising a volunteer group can lead to a separation between

documentation, such as the nomination of post-holders in a constitution, and the reality on the ground. In November the number of volunteers present was four, a reduction of five regular volunteers, and all four volunteers were men. The four volunteers present were Derrick, Arthur, Tim and Paul. Graham was on an away day, Nancy had been a regular attendee but was looking after her ill husband, and Mandy had joined other volunteer activities. However, Linda was planning a range of ways to boost attendance and was working closely with Kate from the Hull Growers' Association who used to work on the GP project. Linda also reported positive working relationships with the Farm staff and the farm, and the farm's volunteers had helped with some of the digging and harvesting. The community garden also produced a wide range of fruit and vegetables, and with a reduction in the number of volunteers. More harvest was shared with the Feastival and with EMS Affordable Food Project. In early 2017, Mark indicated that Linda had managed to slowly boost volunteer numbers and implement a wide range of activities and that things were going well.

A key lesson from the project was that the volunteer group was very fragile without proactive staff with responsibility to support and manage the volunteers at the farm (Milligan and Fyfe 2005, Tornaghi and Van Dyck 2015). However, Linda is going to face major challenges to boost numbers and support volunteers with vulnerabilities, with gender, and participation of women, emerging as potential issues. This has implications for volunteer management more widely, especially projects working with more marginalised groups.

Part 3: What happened next? Post project sustainability: survival, diffusion and fragility

The GP project went from £1m funding over 3 years to no funding at the beginning of 2016. This provides an example of the real-life challenges for CSOs. Without some form of continuation staff could leave, activities stop and contact with hard-to-reach communities finish. The research also shows that uncertainty of which activities would be effective, and uncertainty of whether future funding would be available, mitigate against a clear exit strategy as GP staff, in line with many CSO staff, would continuously seek funding to carry on effective activities right until the end of a funded project. However, the individual agency of the project management and staff within the partners, and the volunteers,

meant that in some cases activities would continue and new activities would be developed (Cleaver 1999).

After the GP project, EMS identified that it would focus on food and fuel poverty, food growing and biodiversity. EMS used their financial reserves to continue to employ Mark and Peter, and it also quickly secured two small grants from HCC to develop a community allotment and affordable food project in Southcoates East, with participants in the community allotment agreeing to contribute 10% of food grown to the affordable food project.

During 2016, EMS also secured small pockets of funding to develop biodiversity work with sheltered housing residents and at schools, based on partnerships developed in the GP project. EMS worked with older people at Pickering and Ferens (P&F) which had been a key partner in its community energy work. The GP project had supported a 'kid's eco-club' and tree-planting at a local primary school and then used the social capital developed to work in more schools (Franklin & Marsden 2015).

EMS also used the volunteers to help with these projects such as to prepare the community allotments and support more tree-planting in schools. In addition, EMS invited the volunteers to become involved in the affordable food project if they needed support. For example, Arthur needed support with his diet to help with his diabetes, although one former volunteer was invited to participate but then informed they did not meet the criteria. By early 2017, EMS was also in the final stages of two funding proposals for BLF and another donor for major funding for community allotments and a therapeutic garden. Val (EMS Manager) indicated that the potential for further funding from BLF indicates the positive relationship between BLF and EMS based on the project outcomes and joint working. Probe also developed activities from its work with East Hull Community Farm (EHCF). This included working with the farm to continue to support volunteers within the farm with plans to be a sustainable group, and Probe also successfully obtained Heritage Lottery funding for a wildlife project, with EHCF as a venue.

During 2016, GP staff members Mark and Kate had begun their own CSO, Down to Earth, which developed a herbal garden in west Hull. A number of GP volunteers helped develop the garden, with Paul, a volunteer with mental health issues, becoming a foreman and receiving health and safety training. Kate was recruited to lead the Hull Growers Network

which became the implementing organisation of the Festival (with the development, funding and recruitment led by Timebank). Brendan also left Probe to lead on Rooted on Hull which was working to develop a mobile city farm.

The innovation of new project ideas built on the platform of the GP project are examples of diffusion into other activities, in line with the findings of Seyfang and Smith (2013). The innovation of new activities also highlight the agency of staff (Cleaver 1999), with the UA projects in particular providing a platform for new activities and developing connections developed between the GP project and other projects in the city (Franklin and Marsden 2015).

Unfortunately, the survival of the innovated projects is fragile (Hargreaves 2013a). For example, Down to Earth was using land provided by the University of Hull but in late 2016 Mark and Kate were handed a notice indicating that the land had now been designated as a carpark, reflecting the relationship between long-term sustainability and land security (Tornaghi 2014, Purcell and Tyman 2015, Sadler et al 2015). The University offered another piece of land, and funding for a poly-tunnel, but Down to Earth volunteers felt less secure working with the University and also objected to the green space being turned into a car park. One of the key organisers dropped out until Down to Earth could obtain its own land.

Some of the GP project activities were not able to continue. This included ineffective activities including Green-Care, but also activities that had engaged with the local community including community energy activities and UA training courses including the FGP and Men Behaving Dadly course.

A range of interconnected issues influenced long-term sustainability including project effectiveness, staff agency and performance, donor priorities and resource requirements (White and Stirling 2013, Creamer 2015). The agency of individual staff was a critical factor (Cleaver 1999) with a heavy link to staff performance. For example, many of the sustainable activities were UA-related and built on the continued work of Mark and Kate with EMS and other agencies. In contrast, Green-Care had not been effective in reaching out to the community or developing partnerships with key stakeholders. For the community energy work, it could be argued that it could have been more effective,

particularly around building ongoing participation, although the project did make a range of impacts.

Donor priorities were also a key influence (Creamer 2015). Donors such as the BLF have historically been more focused on supporting UA activities than community energy activities (Kirwan et al 2013, Seyfang et al 2013). In addition, the Lottery (across both BLF and Heritage Lottery funding streams) is also interested in funding biodiversity-focused projects. The government has previously provided small grants to community energy activities, but has reduced support in this area as part of the roll-back of the state (Seyfang et al 2013, Parkhill et al 2015). In addition the government has legislated for energy companies to provide smart meters which could impact on civil society projects work on reducing energy usage, and particularly any like the GP project that focused on providing energy monitors (Hargreaves et al 2010). Therefore EMS found difficulty identifying donors to support its community energy activity in terms of a continuation of current activities or expansion into new areas.

However, another key difference related to resource availability. Although EMS did generate some small amounts of income through UA activities, this was not enough to support staffing costs, and no activities were able to sustain themselves through generating their own income as social enterprises (Holland 2004, White and Stirling 2013, Tornaghi 2014). The volunteer group was able to continue in some way with very limited funding, indicating a potential difference between UA activities with low financial barriers to continuation if land is available and community energy activities which required funded technological inputs (Holland 2004, Saunders 2012).

The development of local participation through a volunteer group is also a key factor in sustainability (Bradbury and Middlemiss 2015). For the UA activities, the FGP and Men Behaving Dadly projects were described as effective, but were also resource intensive and needed a funded member of staff and additional resources.

These differences in opportunities for long-term sustainability between UA and community energy activities were reinforced in a communication by Transition Hull³ in late 2016. Transition Hull identified that all ongoing environmentally focused community-level

³ Transition Hull is part of the Transition Town movement.

projects in Hull were linked to UA rather than community energy, were mainly focused at community locations and were heavily linked to the input of volunteers.

9.4) Recognition? The role of Hull City Council in supporting sustainable place-making

Franklin and Marsden's (2015) framework for sustainable place-making has a strong focus on the need for local authorities (LAs) to take a strong role in supporting activities and sharing learning. There is also a focus on LAs scaling up activities to make a bigger impact (Seyfang and Smith 2013, Franklin and Marsden 2015, Bulkeley 2015). The literature reviewed in chapter 3 suggests there are huge differences between the sustainable development-focused actions of prosperous cities with resources, such as Vancouver and Toronto, and smaller post-industrial cities in the UK (Holden 2012, Hardman and Larkham 2014, Jonas et al 2016). Although there can be tensions between economic, social and environmental priorities, there are many examples of larger North American cities supporting civil society-led community-focused sustainability initiatives (Staehele 2008, Purcell and Tyman 2015). In contrast, English LAs in particular, including Hull, have been hit particularly hard by funding cuts since the election of the Conservative-led Coalition government in 2010 and a subsequent Conservative government in 2015, and have focused on economic development as their main priority to regenerate cities and generate income (Holland 2004, Franklin and Marsden 2015, Jonas et al 2016).

HCC has a city plan with a strong focus on job creation through developing a renewable energy industry, including through investment from Siemens (Jonas et al 2016). HCC also has a strong anti-poverty theme focusing on reducing energy costs and food poverty. HCC has also developed a robust climate change strategy and HCC has increasingly focused on climate change since the Hull Floods in 2007 and 2013 (Jonas et al 2016). However, many stakeholders argued that the main focus of HCC is on investment and job creation rather than climate change (Jonas et al 2016). For instance, HCC established a Green City group to establish a 'green vision for the city', but this group has not been active since 2012 (HCC 2012, Jonas et al 2016).

In relation to climate change, HCC's Climate Change Officer identified that the key focus of activities is reducing CO₂ emissions through improving the energy efficiency of HCC

buildings. The climate change strategy also identifies actions linked to other areas of work including increasing recycling rates, increasing renewable energy and maintaining green spaces and biodiversity both to mitigate and to adapt to climate change. These activities are all linked directly to HCC services such as the strong council support for recycling. However, the support for renewable energy is focused on the renewable energy industry rather than community projects.

Planning is a key tool in managing competing council priorities, including any tensions between economic and environmental aims (Crane et al 2013). The HCC planning officer identified that there was a commitment to maintaining existing green spaces and also developing new green areas. However, the overarching planning priority, in line with the city plan, was to encourage economic regeneration including the Green Port development, involving Siemens, from the City Centre along the Humber estuary to the east of the City including Marfleet and Southcoates East (Jonas et al 2016). Therefore, some existing public green spaces or spaces next to the Humber River have been allocated for industrial use. In interviews, local stakeholders were supportive of the Green Port investment, the potential for job creation and in particular the focus from Siemens on trying to enable local people to access jobs through local recruitment and an emphasis on providing training to employees rather than needing qualifications in advance, which could be a barrier to many local people.

However, from the perspective of local sustainability, there could be tensions between HCC's focus on economic regeneration and protecting green spaces in an area of deprivation (Milbourne 2012, Walker 2016). There is a lack of recognition of the importance of community-level sustainability focused initiatives and how HCC can support them. For instance, in early 2017 Hull City Council released a draft Open Spaces strategy for consultation which identified that community gardens were not formally considered as Open Spaces. There is no specific strategic support for local civil society sustainability actions including UA or community energy activities. Jonas et al (2016) also identify a tension between supporting investment and involving civil society in their case study research into Hull and Bremerhaven, indicating that involving civil society can deter businesses from investing into the renewable energy industry.

Hull City Council support for the Green Prosperity project

Wider CLS project stakeholders, including BLF and NEF, indicate that proactive support from LAs has helped in the sustainability of some CLS project activities. LAs were not able to lead CLS projects, however, some LAs established charities to bid for funding. In addition, some CLS projects involved LAs as partners. Alistair (GP project enabler) identified specific examples where LAs were very supportive:

[in] Sunderland and Irwell Valley – the Council’s involvement has been very good, very helpful. It’s not confirmed yet, but in the case of sustainable Sunderland - they’ve been offered a possible way forward by Sunderland Council’.

However, Alistair identified that HCC were less dynamic in supporting CSO projects. Margaret (NEF) also identified the need to involve councils to diffuse and scale up work. Margaret did not see any tensions emerging between the potential to involve LAs in community-level sustainability, in the context of funding cuts affecting LAs and a focus on economic priorities (Jonas et al 2016). However, other CLS stakeholders had seen this tension. Alistair also provided a note of caution on working too closely with LAs, resonating notes of caution from White & Stirling (2013) and Franklin & Marsden (2015) about how LAs and civil society should work together:

‘if a council had been leading it, they could have well have been looking for political advantage, as well as delivering the project. I could see them being very cautious about actually doing anything that might offend people who might not vote for them. And council offices could be tied up in red tape’.

In Hull, HCC was not a formal partner, and GP did not work continuously with HCC on a strategic basis. However, GP worked with a wide range of HCC departments on an activity-by-activity basis. For example, the project worked closely with the Southcoates East housing team to communicate on activities and provide feedback. Mark from the UA team worked closely with the Adult Education Team. HCC provided land and resources to the Feastival. HCC also provided land for EMS to provide community allotments, including two for families from the FGP project. Warm Zone, a charitable arm of HCC, provided a range of early information to help the community energy project, although this was later affected by data protection issues. EMS also received a wide range of HCC staff input in

separately funded projects including a BLF-funded local Community Economic Development Plan for Southcoates East and also obtained small pockets of HCC funding for its affordable food project and community allotments.

However, GP stakeholders from CSOs and local communities argue that strategic support for community-level sustainability activities is ambiguous and this ambiguity flows through to support at an operational level which is ad-hoc and depends on individual staff, location of offices, and resources. A number of GP staff were asked about whether they thought HCC could help support the long-term sustainability of activities. Val (EMS Manager) indicated that: 'It's difficult to lever the money out the council... you get one off grants, and you get small pockets of funding which usually involve a lot of work'. Jon and Jane from Probe also discussed the potential role of HCC in terms of supporting Probe's UA activities specifically:

Jon: 'I think there is [a role for the council] because of land'

Jane: 'but [Interviewer] said funding, that's a difference'

Jon: 'have to say the Farm is peppercorn rent, I mean we haven't got the lease, but the council own the land.. and it is a valuable resource. So I think they have a role to play but they are snookered by the amount of funding that they've got available.....[HCC are] friends but limited in what they can do'.

The following quote from Christina summed up the general feelings of activity-focused staff on trying to approach HCC for support: 'God knows, don't know, I would even, I probably wouldn't even go there to be honest, just stodge you down wouldn't it (laughs)...I think that is, nah, I wouldn't bother myself, but nah - they ain't got any money, they waste it when they do have it'.

This negative view of HCC support was also reflected by Brendan. Brendan left Probe to manage a CSO focused on UA and looked for support from HCC:

Brendan: 'I don't know, I am in two minds with the council, yes I do believe they have a role to be involved more and If they've got funding they should help wherever they can. They put money out, sort of a bit willy-nilly, there no strategic

planning about what are we trying to do here. They're trying to say to those of us that work out here that, give us some idea and we might have some money here'

Interviewer: 'It's not part of a wider strategy?'

Brendan: 'It's not part of a wider strategy.'

Confusion and lack of transparency were also reflected in the mixed messages about potential HCC funding for EMS's community energy work. At one stage, a senior HCC officer from the financial inclusion unit identified there could be funding of approximately £25,000 for the GP project to continue to support people vulnerable to fuel poverty. However, this staff member left and no funding was provided. EMS had attended a series of meetings with HCC's Affordable Warmth Steering Group which developed an Affordable Warmth Strategy (HCC 2016). However, the key focus of the Affordable Warmth Steering Group was obtaining capital funding for housing improvements and the Group also had a focus on supporting Warm Zone, a charity developed by HCC, rather than looking to support community based CSOs. This focus on Warm Zone was despite negative feedback on the lack of effectiveness of Warm Zone by a range of stakeholders and local residents.

Mark also dismissed the potential of HCC supporting sustainability focused activities on a practical level due to the reality of funding cuts (Jonas et al 2016):

'I think because of all the government cuts and the council slashing their staff, they don't even do half the stuff that they used to do – which is not their fault, but to expect them to take on new elements, no, I can't see how that would work, if they had some community wardens - maybe some community wardens could support people horticulturally.....they've got rid of the whole community warden team, they've got rid of the whole garden maintenance team, so they don't do any of the stuff of like that that they used to do'.

A Chief Executive of a charity working in east Hull indicated that there was a lack of HCC support to CSOs generally including lack of involvement of CSOs in HCC's strategic planning and lack of support for CSO training needs. In addition, HCC were increasing the costs of rents for CSOs, making rents commensurate with those paid by private companies. The Chief Executive described HCC as behind the times in this regard compared to other LAs including Bristol. However, the Chief Executive also identified that she had been able to

work with HCC to propose the development of a new voluntary and charity sector strategy and had secured a CSO position in ongoing City Plan discussions. By late 2016, stakeholders were seeing some potential in the HCC's City of Culture work to help support specific community-level activities such as the Festival.

Lack of transparency particularly hit project participants who were looking for, or needed, HCC support to access community-level environmental sustainability activities as part of sustainable place-making (although many participants described where HCC had helped them in other areas, including accessing food parcels and support for learning difficulties). Lack of transparency is in line with Walker and Day's (2012) focus on procedural justice issues and vulnerable residents not being able to access information and services which would help them. For example, Nancy had approached HCC to turn wasteland into gardens, but had been told this is not possible, and was advised on any steps that could be taken to access other land. Arthur had been locked out of his former allotment as the land was prioritised for economic development, and then was affected by the closure of the Hull College site in Southcoates East which had been the venue for the Horticulture courses but was then redeveloped into a Siemens training facility. These examples highlight the potential for economic objectives to take priority over environmental objectives in particular (Walker 2016). Interviews with participants in the community energy project also demonstrate the difficulties vulnerable residents had in trying to access HCC support.

Lack of transparency in accessing transparent HCC services, linked to issues of procedural justice, also affected Graham not being able to gain more control of his personal independence budget to access activities that brought him closer to working with people and in nature. This lack of transparency of how personal care budgets worked also affected EMS and Probe who were interested in focusing some of their UA activities on providing care for people with health challenges, in line with a social prescribing approach, including as a tool to generate income (White and Stirling 2013, Kimberlee 2015). Unfortunately, the end of the GP project then compounded these issues by removing a communication link between stakeholders and HCC.

In Hull, a picture emerges of a number of examples of HCC support for individual initiatives on an ad-hoc basis, but a lack of a clear strategy to support community-level sustainability

focused activities operated by civil society organisations including UA and community energy. Reductions in Central Government funding to local authorities severely restricts council expenditure, particularly affecting expenditure on social and environmental activities (Jonas et al 2016).

However, stakeholders also expressed a desire for non-financial support. This included greater recognition of the role of CSOs and the contribution of place-making activities, more CSO involvement in developing strategies, more transparency on HCC decision making and services, and greater voice from marginalised people. Lack of office space, lack of land security and a need to help with contract arrangements were also identified as critical issues where HCC could help (Purcell and Tyman 2015).

If HCC were able to dedicate some limited financial resources to supporting community-focused sustainability activities, the literature identifies the benefits of employing a staff member within the LA to provide advice and support, coordinate learning, and help link organisations with other local authority services and strategies (den Exter et al 2015, Franklin and Marsden 2015).

The end of the GP project shows that while a LA can have a critical role in the sustainability and diffusion of activities, there is also a need for inputs from other actors. Civil society is needed to develop, innovate and continue activities, including when there is little funding available (Seyfang et al 2013, White and Stirling 2013). Donors are needed to provide clear funding directions with a view to assisting the long-term sustainability of effective activities (Kirwan et al 2013, Creamer 2015). For example, donors could retain some funding to support more effective activities to become sustainable after an initial project is complete. The national government also has a clear role to play to support community energy activities in particular (Seyfang et al 2013, Martiskainen and Nolan 2015, Parkhill et al 2015).

9.5) Building networks and alliances for long-term sustainability

In the literature, it is widely argued that civil society should aim to build networks and alliances to generate support for sustainable place-making activities to become sustainable in the long term and influence mainstream policy (Choudhury and Ahmed

2002, Smith and Seyfang 2013, Franklin and Marsden 2015). As explored in chapters 7 and 8, there were many benefits at individual and community levels including relating to improving health and well-being, developing skills and confidence, and educating children. There is also the potential for global environmental benefits through reducing CO₂ emissions by reducing energy usage, the production of local food, and increased vegetation and biodiversity (Andree et al 2015, Creamer 2015, Mason and Montalto 2015). Increasing biodiversity can be considered an important but unanticipated benefit when reviewing the potential outcomes of sustainable place-making featured in the literature review (Holland et al 2016). These outcomes should provide a basis of generating support from the local community, other civil society organisations, the local government, donors and the national government.

Civil society emerged as the most supportive sector in terms of providing leadership to sustainable place-making and implementing activities (Smith and Seyfang 2013). Two of the project partners continued sustainable place-making activities with EMS, in particular, focusing on projects combining social and environmental outcomes including UA, affordable food and biodiversity. The Feastival also highlighted the benefits of civil society working together, with the continuing UA activities, including the volunteer group now linked to the Hull Grower's association. The continuing UA activities and closer joint working between organisations could lead to the development of stronger local food networks (Andree et al 2015).

In terms of community involvement, the project was successful in engaging people who would not otherwise be involved in projects, in line with arguments supporting positive localism (Featherstone et al 2012). This included engaging a strong team of volunteers that provided a platform for other activities to reach into the wider community (Milligan and Fyfe 2005). However, outreach was restricted to approximately 1,800 people (as per the project database identifying the number of participants), due to the limited scope of the project, and there were issues engaging to hard-to-reach groups including young people. In addition, participants did not push for political voice to influence policy except for gaining permission and support for specific initiatives such as the Feastival.

Local government is a key institution that should recognise and support initiatives including through policy and planning (Holland 2004, Franklin and Marsden 2015).

However, in this case study, there was no formal political support from HCC for the GP project. There is no strategy to support sustainable place-making, although HCC still provided small grants and other ad-hoc support. Local government support would be in line with Local Agenda 21 (LA21) but LA21 is no longer considered as a strategic objective. National government has not provided any direct support for the project. In addition, there is little prospect of developing increased national policy support, in the context of austerity-inspired funding cuts to local government, and reducing financial support to renewable energy (Franklin and Marsden 2015, Parkhill et al 2015, Jonas et al 2016).

In the absence of clear policy support from national or local government, the Big Lottery Fund emerges as the major stakeholder providing funding for GP activities and the main target of funding bids (Milbourne 2012, Kirwan et al 2013). However, this indicates an over reliance on Lottery priorities as evidenced in the lack of interest in continuing to fund community energy initiatives. A clear outcome is that only UA activities have proved to be sustainable after the project finished, with community energy activity having an impact but not proving sustainable. A combination of reducing national government support and lack of donor support could have severe implications for community energy initiatives.

Effective monitoring and evaluation (M&E) and sharing learning are particularly important in identifying potential global environmental benefits, which could then influence climate change policies (Holland 2004, Bulkeley 2015, Mason and Montalto 2015). The important role of M&E and learning also provides scope to involve universities including through collaborative research between different disciplines such as climate change science and humanities (Khagram et al 2010). Hargreaves et al (2010) identify how universities can support research projects into sustainability activities. There are also examples of universities developing and supporting UA and community energy activities through research and sharing learning (Hargreaves et al 2010, Tornaghi and Van Dyck 2015, Bradbury and Middlemiss 2015). In this case study, there was no budget for collaborative research although there is ongoing work for continuing partnerships between local civil society organisations and University of Hull human geography academic staff. The University could have become a stronger ally to sustainable place-making had it maintained its support for Down to Earth through the provision of land and volunteers, but this support is now insecure and the relationship is strained, highlighting how insecure land tenure can affect UA activities in particular (Staeheli 2008, Purcell and Tyman 2015).

On the positive side, schools became a key ally in the local community as they were involved in UA activities during the project and then involved in new projects focusing more on bio-diversity including tree-planting and wildlife. These unanticipated outcomes from the GP project are also important as participants identified the strong potential for biodiversity focused projects for engaging children, with engagement in climate change identified as a critical issue (Crane et al 2013, Holden and Larson 2015, Creamer 2015). It is argued that in the long term, increased environmental education could lead to wider engagement (Ampuero et al 2015). Pickering and Ferens, a registered social landlord (RSL) providing sheltered housing for older people also became an unanticipated ally for biodiversity work after involvement in the community energy activity.

9.6) Conclusion: governance challenges and fragile sustainability

BLF had a major impact on project governance (Kirwan et al 2013, Creamer 2015). BLF funding decisions enabled the GP project to be developed and implemented by local civil society organisations working in deprived areas (Milbourne et al 2012, Kirwan et al 2013). BLF also expanded its support from a traditional focus on UA to other sustainable place-making activities (Milbourne et al 2012, Kirwan et al 2013).

BLF also provided a safe space for innovation of activities (Petchey et al 2008), and this flexibility flowed through into the GP project. Some staff and activities thrived, for instance the UA project staff were able to tailor their approaches based on learning to develop activities that engaged volunteers, and then use the volunteers to outreach into the wider community including families with children. Strong health and safety procedures and volunteers feeling supported were also an important aspect of continuous volunteer engagement. In addition, while the community energy activity could have engaged participants more effectively on an ongoing basis, the use of energy monitors and home visits reached out to a large number of vulnerable people and enabled the project to collect data on its impact. One area of learning for the project was relating to difficulties engaging young people and BME populations, although the UA activities adapted by working in schools.

However, other activities were ineffective and were allowed to fail. Internal project governance arrangements relating to engagement, participation, implementation, had a major impact on project effectiveness (Choudhury and Ahmed 2002), with BLF providing a platform for what the GP project then went onto achieve. Partners managed activities in different ways. The lead partner, EMS, focused on delivering its own activities and did not feel able to instruct Probe Ltd and the Freedom Centre to improve the management of failing activities. Staff also brought different skills, experience and approaches to making their activities more effective, bringing the individual agency of staff into sharp focus (Cleaver 1999). There are also lessons around the complexity of sustainable place-making activities, with Green-Care highlighted as being too complex for CSO management and requiring specific skill sets and higher technological inputs. In contrast to waste recycling, there was no research into the local community's practices and priorities to identify if Green-Care and eco-enterprises could more effectively address needs, or to provide a basis for deciding to de-prioritise these interventions.

BLF also had a major impact on long-term sustainability (Petchey et al 2008, Kirwan et al 2013). In contrast to other BLF funding streams, BLF made a decision not to provide any continuation funding for any CLS activities (Petchey et al 2008). BLF instead focused on developing a new funding stream which could provide funding for smaller scale community development activities and fund projects from 2017. It is not clear to what extent project intermediaries in the learning partnership influenced funding decisions. In particular there was a disconnect between the focus of projects on community development activities and the focus of NEF on behaviour change and a continuous reporting of a lack of behaviour change focused achievements.

External and internal project governance issues including lack of clarity around funding, partnership working and communication crystallised towards the end of the project when all project stakeholders wanted clarity over long-term sustainability and what would happen next with the project and their jobs (White and Stirling 2013).

Ensuring the long-term sustainability of activities was a key issue for the GP project staff and participants, particularly towards the end of 2015. Without further funding from BLF, responsibility fell on individual managers and staff to try and continue activities whilst seeking future funding possibilities (Seyfang et al 2013, White and Stirling 2013). From the

GP project, only UA activities proved able to provide a platform of sustainability due to a range of important issues relating to the effectiveness of the community garden and other activities, the agency and actions of individual staff, the potential to innovate into new activities, the continuing commitment of volunteers, the low resource requirements if land was available, and financial support from donors (Kirwan et al 2013, Purcell and Tyman 2015). In contrast, ineffective activities such as Green-Care had little support to continue.

For community energy, the activities had beneficial outcomes for participants but staff felt they had exhausted work in the target locations and there was less agency to innovate and scale up activities (such as through expanding to solar panels) to obtain support. There was some initial support from HCC to continue the existing community energy activities into different geographical locations, however, this support did not materialise into funding and EMS were unable to secure other sources of funding. Central Government policies including: reduced support for financial support for CE projects through grants and through FiTs; the abolition of DECC; and Government legislation for energy providers to provide smart meters also impacted on long term sustainability (Seyfang et al 2013, Parkhill et al 2015).

Building on the outcomes of the GP project would require a multi-stakeholder approach, in line with observations from Unsworth et al (2011) and Holden and Larsen (2015) that supporting community-level environmental and social activities should be part of a wider multi-stakeholder environmental sustainability strategy with a focus on local action. HCC provided ad-hoc support to a range of activities at an operational level. However, the UK Central Government is rolling back its support to specific activities, such as community energy, and the potential for HCC to increase involvement is severely hampered by budget cuts from Central Government (Franklin and Marsden 2015, Parkhill et al 2015, Jonas et al 2016). Without support from local and national government, civil society organisations are targeting donors for financial support with a heavy reliance on the Big Lottery Fund and other Lottery funding sources. There is also clear evidence of civil society organisations supporting each other to continue activities where large scale funding support cannot be obtained.

Despite severe spending restrictions it is argued HCC could support sustainable place-making through improved recognition, strategic direction, greater transparency in decision

making and reflexive planning (Walker and Day 2012, Franklin and Marsden 2015, Purcell and Tyman 2015). Such support would be in line with the original LA21 aims and objectives which have slipped off LAs agendas (Holland 2004, Chatterton & Cutler 2008, Bulkeley 2015).

There could be some hope for the future: HCC is now involving some civil society representation in its strategic decision making and GP staff also indicated that Hull's increasing focus on becoming a centre for renewable energy could provide an opportunity for the LA to engage people in climate change awareness and mitigation activities. The GP projects more unanticipated success in working with schools and older people also provides hope for future engagement.

Having considered support for long-term sustainability Chapter 10 below explores the connections between sustainable place-making activities and wider environmental sustainability. Evidence of a connection could provide a platform for continuous support from local and national government, donors and other stakeholders for civil society-led activities (Creamer 2015).

Chapter 10) Discussing steps towards environmental sustainability: engaging people in tackling climate change

Chapter 4 described how the literature identifies tensions between arguments supporting a focus on community-level sustainability actions and critical questions as to whether they can help achieve the society-wide transitions in behaviour and practice needed to tackle climate change (Chatterton and Cutler 2008, Creamer 2015, Miller 2015).

In contrast to clear social and some economic outcomes, the urban agriculture (UA) and community energy activities provide limited evidence for wider environmental outcomes, except that a number of households successfully used the energy monitor to reduce energy usage and consequently CO₂ emissions, but this outcome could not be measured.

In line with the BLF aim for CLS projects to engage people in climate change, this discussion chapter explores the views of project staff and participants on whether they were motivated by environmental actions and whether they felt there was a connection between their own activities and tackling climate change. The chapter explores a wide range of beliefs, values and opinions however, there is a strong focus by participants of the need to improve the local environment. The chapter discusses connections between a focus on the local environment and wider environmental action and if there is the potential to build on the work of the GP project as part of a long-term approach to engaging people in tackling climate change.

10.1) Exploring connections between community-level actions and wider environmental outcomes

The GP project did not focus on pro-environmental behaviour change. Project staff stated that the community energy activity included work to reduce energy consumption, but in line with the findings of Seyfang et al (2013), the focus of work with residents was to help save money. In addition, staff did not see a direct link between UA activities and behaviour change. Rather than focusing on behaviour change, during the research I explored whether project participants felt there was a link between their actions (including through

UA and community energy activities provided by the GP project) and environmental sustainability. Key themes raised by respondents are explored below.

Perceptions: links between UA activities and environmental sustainability

Some respondents linked local food growing to helping environmental sustainability through protecting the local environment, allowing people to enjoy nature, increasing self-reliance, and reducing food miles and packaging. For instance, Helen a regular volunteer at the community farm who also keeps her own allotment said that:

‘myself and my husband have always tried to minimise our carbon footprint. And having an allotment certainly helps that, because the food miles that you do.... is a lot less, than it would have done if it was in Tesco’s or wherever. Obviously you can’t grow everything but what we do grow we always enjoy eating’.

There was also a strong emphasis on protecting the environment for future generations and intergenerational education. For instance, Justin from the Family Growing Project (FGP) argues that that:

‘if you educate kids early, in the community, in gardens they get a bit more of a bond with nature, its respect, so I do see a lot, ...And sustainability, even if it is just communities growing their own food, it’s going to bring communities together where they say ‘I’ve got some carrots, I’ve got some potatoes’ and with community comes respect and for the environment as well, so I can see the link’.

The above quote also shows that the enjoyment of growing and eating your own food provides a platform for aspects of pro-environmental behaviour. Alison from the FGP also makes a strong link between food growing and reducing carbon footprints, and also describes how people growing their own food often recycle:

Alison: ‘growing as much as you can, you reduce your carbon footprint, quite a lot, if you’re going out in the garden and growing onions, and not growing Spanish ones’

Interviewer: ‘is that important as an issue?’

Alison: ‘Yes I think it matters and it is an issue to reduce your carbon footprint,You’re also directly recycling from your own environment, that would normally be put into landfill that you’re using, recycled wood, plastic sheeting, recycled bricks’

Interviewer: 'it all counts?'

Alison: 'it all counts because if you're using it, recycling it on the allotment rather than it going to landfill, pallets are a big thing as well – to make fencing'.

FGP participant Sarah also makes a connection between food growing and recycling:

'Because I can go out and pick something, it's not in packaging which is brilliant because we have way too much packaging. My blue bins are full every fortnight because everything you buy has 3 layers of packaging on it and you have to throw it away .. if you get it out of the garden, and you wash the mud off, it fine, and you don't need that extra packaging' [Sarah].

Connections were also made between UA, creating natural spaces and supporting biodiversity. Bhatti et al (2009) emphasise the importance of being able to enjoy biodiversity as part of place-making. Holland et al (2016) identify that protecting biodiversity is often ignored in environmental sustainability debates which focus mainly on climate change. Some participants and volunteers were also involved in other environment-focused organisations including Friends of the Earth and the Royal Society for the Protection of Birds. Another respondent emphasised the importance of helping biodiversity for children and as a governor of her child's primary school she was keen to get the school involved in ongoing biodiversity projects. This resonates with Justin's comments above about engaging children in food growing and nature and the motivations of many families in the FGP and the work with refugees and their children (Spicer 2008). Connecting biodiversity to education could be important in engaging children in environmental issues (Ampuero et al 2015).

However, connections between food growing and protecting nature can't be taken for granted with a number of volunteers who grew food on the allotments also identifying how they used weed-killer or pesticides. In contrast to some volunteers and staff were opposed to this and wanted the community garden to be operated on organic principles.

Volunteers also linked food growing to self-sufficiency and a range of other pro-environmental actions. Regular volunteer Nancy stated that:

'I'm really, really into green, I mean I recycle before they recycled. Steve and I have got solar panels on the roof, to save energy that way. We're selling back what we don't use, which is helping. We've always grown wherever we are, we like the freshness of the food, we like the fact we know what's gone on it, we've composted for years, we've had chickens. We like the whole idea of self-sufficiency. If we had the money, we would find land'.

A small number of volunteers and one member of staff also regularly cycled to the community farm for a range of reasons including saving money, keeping fit and not wanting to add to Hull's traffic and pollution problems. One regular volunteer also saw a potential connection between cycling and delivering local food: 'we can run a veg box scheme, it can be delivered from the farm, on bikes, within Hull. We've got the one in the east, we could have another set up in the West.....and both meet in the middle, so they can split up with the boxes. One you're growing the produce, and 2 when you're cycling and delivering it, you're getting rid of your carbon footprint' [Connor].

Increasing self-sufficiency and self-reliance is also an important theme brought out by UA participants and volunteers who linked self-reliance to protecting the environment. A link between food growing and self-reliance was also made by Mandy, a regular volunteer who had experienced food poverty and who the project helped develop a strong focus on food growing.

Interviewer: 'If you could tackle one environmental issue, what would it be?'

Mandy: 'Well, there's that many, I think I'd like to see more things being grown....more growing because I think next year, you've only touched on the surface of food poverty – it is getting worse, that's got to be the one, people need to survive'.

Justin and three regular volunteers also linked self-sufficiency to the Dig for Victory campaign in WW2. For instance Nancy stated that: 'I think if communities come together and identify land, we did it in the war ... well now we have to, how are we going to feed all these refugees, if they knock tax credits down, that's going to put the very worst strains on families possible'. Although romantic misinterpretations of Dig for Victory are criticised by Gunn (2012), the participants identified with an interpretation of Dig for Victory as a

movement towards self-sufficiency where individuals were supported and had a role to play.

Perceptions: energy efficiency and reducing fossil fuel emissions

For those respondents with energy monitors, saving money on bills was the key motivation for respondents, in line with the findings of Seyfang et al (2013). However, 22 of the 40 participants with energy monitors also identified they had wider environmental concerns. These environmental concerns ranged from local concerns, such as recycling, to 15 interviewees stating they were motivated by climate change and reducing their carbon footprint. In some cases being involved in the project had increased their knowledge of climate change as an issue. For instance, Mr and Mrs Mitchell had participated in the project to reduce costs, and admitted they did not know much about climate change, but believed their involvement in the GP project had raised their own awareness:

Mrs Mitchell: 'Been made aware, of obviously the future for our grandchildren, I'm sorry to say that I was a little bit ignorant and naïve really'

Mr Mitchell: 'Get a bit blasé, that electricity is not an infinite source, you know what I mean'

Mrs Mitchell: 'Our eyes have been opened due to GP'.

Steve from the FGP was the only energy monitor participant who stated that his primary motivation was to reduce his environmental impact, although this was strongly linked to increasing self-reliance.

Interviewer: 'What is the motivation of using an energy monitor – is it finance or the environment?'

Steve: 'For me personally it is the wider environmental, because I do quite a lot with my job, I do quite a lot of environmental, so we come under lots of legislation, to be honest we are more easily bollocked if we mess up, to be honest money's not an issue it's just trying better things to do in all honesty, and this is another one isn't it really'.

Steve also describes the other measures he is taking: 'we've got a more efficient boiler, we've got a log burner, were looking at solar panels, maybe for next year, we always buy

energy efficient lights'. However, the use of a log-burner highlights potential conflicts between self-sufficiency and pro-environmental behaviour.

A number of participants wanted to reduce their environmental impact further and expressed an interest in the GP project providing solar panels in line with a focus on community renewable energy (Seyfang et al 2013, Martiskainen and Nolan 2015). However, Parkhill et al (2015) indicate that the cost of solar panels has become more prohibitive with the government reducing Feed-In-Tariff rates, affecting the potential of the GP project partners to expand support in this area. The costs of installing solar panels, were identified as a prohibitive factor by participants. For example, Mandy indicates that:

'I'd also like to see the green energy side being improved. It would be nice if everyone had solar panels for starters, all free of charge, somewhere along the line, because I would embrace them'.

Participants of the FGP and refugee food growing course also identified some cost implications of becoming involved in gardening which can be a barrier for some, although it has a lower cost requirement than renewable energy.

Perceptions: not able to make an impact

A number of respondents stated that they were interested in environmental issues and they saw a potential connection with their own activities, but they felt their own activities would not make a difference given the scale of the problem and the need for changes to be made at larger scales such as at national or corporate levels. This is highlighted in the following quotes from respondents:

Interviewer: 'Are you interested in environmental sustainability?'

Mrs Mitchell: 'Yes, it should interest everybody really shouldn't it'

Interviewer: 'Do you see what you're doing as helping a little bit?'

Mrs Mitchell: 'Yes, but were not doing much are we'.

Mr and Mrs Mitchell had demonstrated a range of environmentally sustainable actions: they had reduced energy consumption through using an energy monitor, and also commented that they used to grow their own food before moving to sheltered housing,

and that they didn't have a car. In addition, Marie, who had participated in energy monitor and UA activities, explained her thoughts: 'Sometimes I think, what's the point? Because one little bit won't help. But then it's on my conscience'. Dan, who was an early volunteer with the project, had a strong ethos of self-sustaining lifestyles, including food growing and low energy usage, but did not link this to climate change: 'Well I am and I aren't, if you think about in relation to the big companies, putting it in relation to the big pharmaceutical companies, their carbon footprints are massive, a bit bigger than mine'.

In addition, some people didn't see a connection between their own activities such as food growing and energy efficiency and environmental sustainability even if they were interested in environmental issues. For example, Sue, an early volunteer with the project stated that: 'I am interested in environmental stuff, there was a thing for electricity but we weren't in the area, but it's all very positive isn't it. That's not the reason I went though, it was for the GYO [grow your own]. Get some fresh air, with the group and stuff'.

Perceptions: lack of immediate concern

Many people the project worked with were not particularly concerned by the immediate impacts of climate change, perhaps because it is so far removed from their lives (Bockarjova and Steg 2014). No interviewees brought up the flooding in Hull as a potential consequence of climate change (the project was not working in flood affected areas). A key factor is that the interviewees did not live in flood affected areas even though they were from the same city. In addition, some volunteers and participants were not confident in their knowledge of climate change and this could have affected responses in a variety of ways. For example, Chris gave some very insightful and expansive answers in a range of areas including food growing, looking for work, and organisational aspects of the Festival, but indicated that he wasn't too sure about facts of climate change:

'when you grow your own you don't use these pesticides do you, so you're helping the ozone, but we're a long way off that though, but we've got to start somewhere..... I'm quite ignorant on that to be fair.'

10.2) The importance of the local environment

The views of UA participants in particular strongly link a wide range of environmental concerns and behaviours into sustainable place-making including improving the local environment with a strong emphasis on education, building communities and enjoyment. A theme emerged of volunteers connecting with local environmental issues more than climate change, because they are more immediate and relevant. Improving the local environment and being able to enjoy biodiversity are also essential aspects of place-making (Bhatti et al 2009, Milbourne 2012). For example, Tim, who volunteered a large amount of time to the GP project activities, including helping tree-planting in schools, which could be seen to directly impact on climate change, stated that his priority environmental issue was to stop fly-tipping. A number of respondents, particularly from the UA activities, identified waste recycling as an important environmental action. This support for recycling reflects the results of the survey conducted by the GP project on recycling behaviour, which identified very high rates of recycling in the local area (as described in chapter 8).

Gail, a volunteer at the community garden and who accessed the community energy activity, reinforced the connection between recycling and wider environmental concerns:

Gail: 'Well yes, you've got to think about the environment, yes of course you have...it's not going to affect us, it's going to affect, not my kids, but their kids if we don't do something about it'

Interviewer: 'Climate change?'

Gail: 'yes climate change and everything, Well me brother, he lives on the Greatfield estate, and he picks up all the litter and all the cans and all the bottles, cause he had a brain tumour, and it put him out of work....he's recognised for it, and I think he should get a bit more recognition, he really does keep the place nice and tidy, he's out all the time on his bike, and then he recycles it all....that's how he's thinking, its generations to come isn't it. You think of what it's going to be like for them, and you've got to do your bit haven't you'.

In the quotation above Gail identifies a range of important relevant points which support the concept of sustainable place-making and that connect local and global environmental

issues. One is the focus on local environmental issues that could then potentially help global environmental issues, such as reducing packaging and increasing recycling. A second is that wider environmental concerns are not restricted to climate change but can include pollution and biodiversity (Ampuero et al 2015). Thirdly there is a need to recognise what people in the community are doing. Fourth is the need to help future generations, which could reflect previous comments relating to the importance of engaging children through access to nature, biodiversity and food growing. Sonia from the FGP also identified a strong connection between food growing and educating children on environmental sustainability: 'It all starts with tiny steps, and literally the tiny steps are in the garden and educating my daughter. And if she doesn't use as much energy, it's going to have a knock-on effect globally really, eventually, well, that's my belief'.

10.3) Engagement in climate change: building on the platform of the GP project

The GP project was not able to demonstrate behaviour change, resonating with the findings of Shove (2010), Aiken (2012) and Creamer (2015) on the limits of local projects with limited timescales. However, participants in the GP project demonstrated a wide range of environmental actions and values. Some of these actions and values were more focused on local-level activities such as recycling, protecting green spaces, increasing biodiversity and educating children, rather than global climate change issues. However, the views also show that protecting the local environment and reducing climate change can be connected and it is argued that a focus on issues that are relevant and interesting could help engage people in wider environmental activities (Pearsall et al 2012, Ampuero et al 2015, Holland et al 2016). Other participants described a lack of knowledge but a willingness to learn more.

Some studies have identified 'class', environmental activism and age as key variables in environmental behaviour and volunteering (Guerin et al 2001, Goodman et al 2010, and Cook 2011) However, the findings from the recycling survey are in line with the finding from Guerin et al (2001) that socio-demographic variables do not influence conservation behaviour to a significant extent. This finding is particularly important in considering the potential for supporting sustainable place-making activities in deprived areas. The high levels of recycling also indicate the importance of recycling to local people as part of pro-

environmental behaviour, and how environmental behaviours can be supported by council services.

When questioned on the potential to build awareness and education on climate change into the project, GP staff felt strongly that developing an education theme should not be the responsibility of the project within the 3 year timeframe as the project had a clear plan of activities. Staff felt that any education strategy should be long-term, city-wide and be led by HCC. While indicating reticence to become involved, this argument could also reinforce the argument that support from the local authority would be necessary to scale up and learn from activities (Franklin and Marsden 2015, Holden and Larsen 2015).

GP stakeholders saw opportunities for joint working between HCC and the GP project to build on its existing work in this area. For example, the GP project worked closely with HCC adult education based in the Freedom Centre and project staff also saw scope to integrate community energy with Maths education. In addition, the GP project had developed connections to local schools on a range of UA and biodiversity projects. There could also be scope to build on its work with refugees who had direct experiences of climate change and could be a useful resource for discussing its impacts. For example, two of the refugee dads on the GP food-growing course, passionately shared their first hand experiences of climate change.

Saado (Somali refugee father): 'It has a huge impact on the farms in Somalia, climate change. We got rivers, two rivers, so it's sometimes flooding,... sometimes just flooding from the river, a couple of hundred of farms just destroyed.... And if it doesn't rain that is a problem because it's hot in Somalia so it's a drought, and the farm doesn't survive from there'.

Romelu (Congolese refugee father): 'I have been affected by environmental change. There were times when we grow things, so many things with the hope that this is normally the weather during this time, this is the planting season, but for some reason something goes wrong, the weather is not as expected, ... it is a big issue because people were always used to planting as per the seasons, and the weather, and for instance, I can give an example, people still prepare the land still and do everything, plant in September because rains are always are expected around that time. And you find that the rains delay and they come two, three months later on -

what happens? - you've completely lost all the time and effort that has been put in preparing and all that and even the seedlings that you've put, it has all gone to waste'

Interviewer: Are the effects financial or food to the family?'

Romelu: 'So, it has two implications, both financial and food, for instance, while you are preparing the land you are already using money, with the hope that you will get money out of it. People who are doing it, to be able to keep some of it, some is for subsistence, for their use for consumption, so for either way, if you are expecting that this is your way of living so you will keep some for your consumption and sell out some to be able to get money to do certain things, so you are affected either way. And at that time there is also obviously shortage of food, and even the food that is available becomes expensive, so whether you have money – it has a lot of interlinked financial and food implications'.

GP stakeholders also argued that any effort to provide education should be seen as an opportunity for residents to become involved and not be seen as a top-down imposed course. Stakeholders also suggested that there should be an acknowledgement of the many efforts towards environmental actions that local residents are already taking including energy conservation, growing food, protecting green spaces and also recycling. This emphasis on acknowledging what is already taking place also acts as a counter to trying to 'change' behaviour, which could imply that people are not doing anything, but focuses on trying to build on existing actions and values which is more in line with a community sustainable place-making approach. GP respondents also felt strongly that there should continue to be an emphasis on practical activities such as UA and community energy to motivate residents to participate. For instance, refugees could be supported with a family growing project and the GP project could also expand to other activities including renewable energy.

10.4) Conclusion: the importance of connecting local activities to wider environmental issues

Governments have supported activities that they believe should lead to pro-environmental behaviour change (Creamer 2015, Hunt & De Laurentis 2015). However, Creamer (2015) argues that projects with short timescales cannot provide evidence of behaviour change. In line with Creamer's (2015) argument, the GP project outcomes provide very limited evidence of pro-environmental change with no staff or participants discussing outcomes in those terms (although interviewees recognised that there could be a link between reductions in energy usage and reduced fossil fuel emissions).

However, many participants strongly voiced that they already demonstrated a wide range of pro-environmental values and actions at different scales including reducing waste, supporting biodiversity, growing food and reducing fossil fuel emissions. The GP project may not have achieved behaviour change, but participants felt that the project supported them to recognise wider environmental issues, how their own actions contributed to sustainability, and to contribute more through becoming involved in UA and community energy activities.

Participants had a strong focus on protecting and improving the local environment, improving self-reliance and strongly supported emphasis on supporting communities and education, particularly in the UA activities. Therefore sustainable place-making rather than behaviour change emerges as a stronger framework for analysis. The links that participants drew between place-making and the importance of self-reliance, and place-making and the importance of biodiversity, also adds to our understanding of how to support successful place-making for communities (Bhatti et al 2009, Sampson & Gifford 2010, Parkhill et al 2015).

Project staff and participants also believed that the GP project provided a platform for more support for longer-term sustainable place-making activities. Volunteers wanted to continue to develop the community garden and bring in new volunteers. A need for solar panels was clearly expressed as a way to reduce emissions and also save money for residents (Martiskainen and Nolan 2015). An increasing focus on biodiversity has been particularly effective for engaging schools and children (Ampuero et al 2015, Holland et al 2016). There is also the potential for increasing education and awareness on wider

environmental sustainability, with Hull's embrace of the renewable energy industry providing the potential basis for widening interest. There could also be scope for incorporating the stories of people who have experienced the consequences of climate change including newly arrived refugees or local people who have suffered flooding.

Participants voicing these connections could be important for making stronger longer term linkages between community-focused sustainable place-making and wider environmental sustainability, and in turn could potentially generate policy support from government and donors (Chatterton and Cutler 2008, Aiken 2012, Creamer 2015).

Chapter 11) Overall conclusions: supporting sustainable place-making as realistic steps towards social, environmental and economic sustainability

The research findings provide a detailed description of the efforts and agency of civil society and local residents to develop sustainable place-making activities in a deprived urban area. This chapter critically analyses the findings with reference to key arguments in the background literature. The conclusions aim to answer the key questions guiding the research:

- 1) What were the social, environmental and economic impacts of the GP project and who benefitted?*
- 2) How did internal and external governance issues influence effectiveness and sustainability?*
- 3) How can activities be supported in the long term and what is a realistic role for local government?*

Therefore most fundamentally this chapter seeks to answer the question:

- 4) Should sustainable place-making activities be supported?*

The chapter then presents overall conclusions and discusses the conceptual contribution of the research before making a number of key recommendations for consideration by communities and civil society, local and national government policy makers, and donors in developing approaches to community-level sustainability-focused initiatives.

11.1) Exploring relationships between outcomes, governance and long-term sustainability

Objective 1: To examine the extent to which sustainable place-making activities can lead to social, economic and environmental outcomes.

Chapters 7 and 8 explored the benefits of the different GP activities for vulnerable residents in a relatively deprived area of Hull. The Urban Agriculture (UA) strand developed a wide range of activities to engage marginalised people including the

development of a community garden, and help for vulnerable local families to grow their own food. The UA staff were able to build a strong team of local volunteers who wanted to give back to their community as a platform for many of their activities (Milligan and Fyfe 2005, Franklin and Marsden 2015). Volunteers and participants strongly voiced many benefits including enjoying gardening, accessing nature, improving mental health, reducing isolation, building friendships, increasing resilience to poverty, providing education to children and building communities. These benefits resonate with a wide range of research into UA and community gardening activities (Milbourne 2012, Crane et al 2013, Miller 2015).

The community energy activities also improved a number of people's lives. The project was successful in reducing energy costs for many participants and helped some reduce their vulnerability to fuel poverty, through safely reducing energy usage, obtaining more transparent information on better tariffs and rights (including switching from payment meters) and accessing the Warm Home Discount (WHD) (Hargreaves et al 2010, Parkhill et al 2015, Snell et al 2015). 72 households identified they had saved money, with potential savings of up to £200 per household per year. 22% of these savings were obtained through using an energy monitor which links directly to reducing fossil fuel emissions (Seyfang et al 2013, Martiskainen and Nolan 2015).

From a sustainable development perspective, the project had many economic and social benefits at both individual and community levels and is a practical example of sustainability in action (WECD 1987, Holland 2004, Franklin and Marsden 2015). For instance, reducing financial vulnerability to food and fuel poverty combines economic and social benefits, and it is also argued brings benefits at both individual and community levels (Perry et al 2014, Parkhill et al 2015). The location of UA activities in the community and the number of people who had improved mental health and wellbeing can also be considered a community wide benefit (Ferris et al 2001). In addition, the Family Growing Project was an example of volunteers working to help the wider community broadening engagement to families and children (Milligan and Fyfe 2005, Miller 2015).

In addition, there is a strong link from both UA and community energy to the concept of sustainable place-making (Franklin and Marsden 2015, Parkhill et al 2015). As well as a focus on sustainability, sustainable place-making also brings in concepts of improving

'place' and building communities. The UA activities were strongly based around the community garden which provided a space for volunteers and participants to come together, enjoy gardening and access nature (Bhatti et al 2009, Milbourne 2012, Tornaghi 2014). The community energy activity had less of a community focus, but the work with a sheltered housing scheme showed potential to develop more of a community of participants. However, the findings also underline how the project enabled participants to develop other essential aspects of place-making. Participants of the UA activities indicated a strong sense of fun and enjoyment including the importance of remembering gardening with grandparents or working with their own children or grandchildren. Participants of both UA and CE activities also emphasised the importance of self-reliance through growing their own food or reducing energy costs and reliance on energy companies and the council. Both the UA and CE activities also demonstrated the links between place-making and tackling injustice for marginalised people, such as through reducing vulnerability to food and fuel poverty. The different types of benefits from both UA and community energy activities can be seen to increase effective agency for marginalised people through including through health and wellbeing (Cleaver 1999, Kabeer 2009, Perry et al 2014).

However, there is less evidence of helping people exercise transformative agency such as through increasing voice in local democracy (Kabeer 2009, Purcell and Tyman 2015). UA participants were particularly frustrated with a lack of recognition from the local authority to increase their ownership of, and access to, community-level sustainability activities. Community energy participants did not feel more empowered to challenge the council over its services. However, UA participants were able to influence project activities, which would have been a big step for many participants. There was also evidence of an unanticipated benefit that for some people, being involved in a sustainable place-making project increased recognition of their needs, with the local DWP benefits office valuing volunteering by benefits claimants (Perry et al 2014, Crisp 2015, Snell et al 2015).

The concept of sustainable place-making also brings in a focus on environmental benefits at individual, community and global levels. The UA activities brought improvements in the local environment (Milbourne 2012). However, the GP project had less tangible wider environmental benefits (such as impacting on climate change) in line with arguments by Chatterton and Cutler (2008) and Miller (2015) on the limited contribution of community-level activities. The community energy activities did lead to a reduction in energy usage,

but the project was not able to produce quantitative evidence on the level of CO₂ emissions, reflecting similar difficulties encountered in research by Hargreaves et al (2010). The project could provide a beginning to developing a local food network (which could reduce CO₂ emissions through reducing food miles), including through the Festival, but this is fragile (Andree et al 2015).

There are also concerns over the long-term sustainability of benefits, leading to questions as to whether improvements to people's lives in a relatively short-term project can lead to more 'sustainable livelihoods' (Scoones 1998, Kirwan et al 2013, Miller 2015). Many of the social benefits were particularly evident for volunteers who engaged over a longer period of time and benefits were more fragile for other more short-term participants of UA activities, such as families involved in the Family Growing Project (FGP) and refugees in the food growing courses. In relation to community energy, there was no evidence of long term health and well-being benefits and vulnerable people require continuous assistance to claim support from the government and energy companies, including in relation to the WHD (Liddell and Morris 2010, Walker and Day 2012, Snell et al 2015). Benefits for participants may not last if important elements of the project don't continue. Long-term sustainability is particularly important to vulnerable people as they are most at risk of negative impacts from changes due to government policy. For instance, a number of participants were worried about the impacts of state benefits reassessment and without continuing connection to GP project stakeholders, could be facing these challenges alone. The short term nature of the project limited scope to consider evaluating wider environmental impacts such as reductions in CO₂ emissions.

Therefore a long term approach is required to improving marginalised people's lives to then enable improvements in transformatory agency, achievement of sustainable livelihoods and wider goals for social justice and social sustainability (Agyeman 2008, Kaber 2009, Walker and Day 2012). Longer term work is also required to develop, identify and quantify environmental benefits (Kirwan et al 2013, Creamer 2015, Mason and Montalto 2015). A strong link therefore develops between long-term sustainability, and sustainable development in terms of social, environmental and economic development.

Objective 2: To examine how project governance influences the effectiveness of sustainable place-making activities.

The case study of the GP project confirms the essential role of civil society as leading, developing and implementing sustainable place-making activities (Smith and Seyfang 2013). Chapter 9 explores both internal and external governance arrangements in the GP project and how they had a major impact on project delivery and effectiveness. This analysis is in line with calls for more research into the challenges faced by civil society and the governance of projects (Choudhury and Ahmed 2002, MacMillan 2015, Peck 2015).

There was a relatively flat structure of partnership working, where partners took responsibility for their own activities, and where the lead partner, EMS, did not take overall authority to direct the actions of the other partners. This arrangement influenced the effectiveness of activities including the poorer performance of activities where EMS did not contribute. The UA and community energy activities, where EMS contributed or took a lead, were more active effective than Green-Care, eco-enterprises and eco-house activities. In addition, where EMS was unsure on how to implement waste recycling activities it conducted a survey to identify whether it was a priority and potential activities. In contrast, Probe and the Freedom Centre did not focus on ensuring that Green-Care, eco-enterprises and the eco-house activities responded to community needs. Staffing arrangements and performance issues, including lack of committed staff resources and poor staff performance, were also consequences of this lack of focus. The UA activities were a positive example of joint working between partners and the recruitment of skilled and experienced staff who worked well together. The lack of effectiveness of Green-Care, eco-enterprise and the eco-house activities also raises questions as to whether civil society and donors have the skills and experience to implement more complex technical projects. In contrast, both BLF and the GP project partners have a history of supporting UA projects.

BLF as the donor also had a major impact on project governance and effectiveness (Kirwan et al 2013, Creamer 2015). BLF funding support was critical in being able to implement the GP project (Kirwan et al 2013, Creamer 2015, Peck 2015). In line with the objectives of CLS projects, the GP project focused on activities that would resonate with local people both in terms of helping people financially through community energy and developing UA activities that appealed to a wide range of motivations including growing food and

volunteering. The GP project was also flexible in developing new activities to meet local needs such as the Family Growing Project (FGP), with this project flexibility strongly supported by the BLF. However, the flexibility could also be seen to have negative consequences.

For UA and community energy activities, the combination of activities responding to local needs and the open and inclusive approach to engagement was particularly effective in engagement of vulnerable people including older people, long term sick and disabled, and the unemployed. The UA activities also focused on engaging families and school-children. Engagement and participation of marginalised groups is argued to be an essential focus of both effective governance and work towards social sustainability (Choudhury and Ahmed 2002, Williams 2003, Agyeman 2008). The UA activity was more successful in engaging people over a longer period, and turning engagement into participation, than the community energy activities. This could be partly due to UA activities being more geared towards long term engagement through the processes of designing, growing, nurturing and caring for a garden over time (Bhatti et al 2009, Purcell and Tyman 2015). In contrast to UA activities, the community energy activity did not focus on continuous community level engagement, despite some success in working with registered social landlord (RSL) community wardens and some UA participants.

The UA activities were particularly focused on the involvement of volunteers, in line with good practice approaches to engaging local communities (Choudhury and Ahmed 2002). There is a range of literature that suggests there is a decline in volunteering and that an increasing proportion of volunteers are middle-class with more spare time and resources to volunteer (Featherstone et al 2012, Dean 2015). There are also studies that suggest people from deprived communities are less interested in environmental issues (Guerin et al 2001). However, the GP project shows that many people want to volunteer and give back to their communities if they have an opportunity, with the input of volunteers allowing the development of other UA activities. For the GP volunteers these opportunities arose through the GP recruiting volunteers from work clubs, from charities working with vulnerable people, or through referrals from the health sector. The GP project provided support through skilled and experienced staff with volunteers voicing the benefits of project flexibility, health and safety and good communication with project staff and participants also described that without strong and skilled staff support it would be very

difficult for vulnerable people to continue to be involved. However, the findings also show that some harder to reach groups including young people and newly arrived BME populations would require more targeting and tailored approaches to become involved (Baker 2004, Staeheli 2008). In addition, continued female participation in volunteering activities became an issue for many volunteers with caring duties. Another important factor in engagement was that the project found it easier to engage residents in Southcoates East and Marfleet where there is considered to be a more coherent community and a larger asset base (Brown and Lishman 2010).

The influence of the donor also impacted on the potential for long-term sustainability of the different project activities (Kirwan et al 2013, Creamer 2015). The GP project spent below the £1m CLS project maximum ceiling and asked if the BLF could allocate 'unused funds' to continue some activities, but no further funding was available after the three-year funding cycle was completed by the end of 2015. In addition, BLF closed the CLS funding stream. It was not clear to what extent the role of project intermediaries played a part in this decision (White and Stirling 2013) and there were tensions between the requirements of NEF and the focus of CLS projects with NEF particularly focused on behaviour change even though CLS project plans had been developed without this focus. (The decision of BLF to close the CLS funding stream and the role of intermediaries was not challenged during the research as the researcher did not want to jeopardise GP project partners' positive relationships with BLF during ongoing funding applications). Lack of continuation funding illustrates the potential consequences of donor requirements on project sustainability, although project intermediaries also played a key role (Kirwan et al 2013, Creamer 2015). The BLF did encourage CSOs to bid for new funding streams which would support place-based partnerships of CSOs and community groups including for UA activities. However, this funding stream would not come on line in time to continue activities in 2016 and the GP project would need to look elsewhere for funds.

Objective 3: To explore the extent to which sustainable place-making activities can be sustained and effective over the long term.

Once the GP project was completed at the end of 2015, funding immediately finished and there was little funding available from other sources creating major challenges for ensuring long-term sustainability, including keeping hold of staff and connections to

marginalised groups (Kirwan et al 2013, Creamer 2015). Trying to ensure sustainability is a challenge faced by many CSOs facing big reductions in funding availability and finding funding is a major effort (Lambie-Mumford 2013, White and Stirling 2013, Creamer 2015).

UA focused activities provided a strong platform for sustainability. Some UA activities continued and new ones were developed while community energy activities stopped. A range of interconnected issues influenced long-term sustainability including effectiveness, staff agency and performance, donor priorities and resource requirements (White and Stirling 2013, Creamer 2015). The agency of individual staff and volunteers was a critical factor in sustainability (Cleaver 1999). Project managers and operational staff built on the success of many of the UA activities to continuously look for funding opportunities. Project managers also adapted and developed existing activities for new donor priorities, such as an increasing focus on biodiversity. The UA staff also built on the skills, experience and networks to innovate new activities including Down to Earth and the Festival (Smith and Seyfang 2013, Franklin and Marsden).

Donor priorities and particularly the priorities of BLF were a key influence on sustainability, reflecting the reliance on the Lottery fund as a donor (Petchey et al 2008, Kirwan et al 2013, Creamer 2015). There was more funding support for UA and green space focused activities than community energy activities due to a range of factors including: the Lottery having a history of supporting UA projects; UA projects having lower financial entry costs (if land is available); and activities can also be developed and sustained by grassroots organisations rather than large-scale CSO projects (Kirwan et al 2013, Seyfang et al 2013, Creamer 2015). Central Government had been an important source of funding for community energy projects, providing small grants and other support, but Central Government support had been reducing both in terms of providing grants and also through reducing wider support such as Feed-in-Tariff rates (Hargreaves et al 2010, Seyfang et al 2013, Parkhill et al 2015). In addition, government legislation for energy companies to provide smart meters also impacted directly on the sustainability of GPs community energy activity (which focused on energy monitors as the initial hook for engagement) and the project did not see an opportunity to expand into renewable energy.

Resource requirements and availability also impacted. No activities were able to generate enough income to sustain themselves as social enterprises (Holland 2004, White and

Stirling 2013, Tornaghi 2014). The volunteer group was able to continue in some way with limited funding and limited staff input as land was available (Holland 2004, Purcell and Tyman 2015). The volunteers were particularly focused on continuing the community garden, resonating with the arguments of Holland (2004) and Purcell and Tyman (2015) that community gardens provide a strong platform for sustainability through the long term nature of developing a garden and growing food, the connections between growing, cultivation and care, and the process of developing friendships. Continuous engagement of local residents as volunteers was also an important factor in long-term sustainability particularly when there was a gap in funding (Bradbury and Middlemiss 2015) and the volunteers could manage some ongoing tasks themselves with limited staff input. The continuation of the volunteer group and the range of support provided also relates to the strong social capital developed between the volunteers and GP staff (Franklin and Marsden 2015). Unfortunately, the FGP and Men Behaving Dadly projects needed significant staff input and additional resources and were unable to continue without specific funding. The continuation of some UA activities but not others indicates that a complex network of social capital, resources, individual agency and the potential to work through periods of no funding influence sustainability in addition to project effectiveness.

However, each continuing effort is in its early stages and is fragile without support (Staehele 2008, White and Stirling 2013). EMS has only managed to attract smaller grants although is in the latter stages of securing more large-scale BLF funding. The volunteer group have secured access to the farm and have staff support, but volunteer numbers ebb and flow and staff support is only guaranteed to the end of 2017. Down to Earth were looking for increased funding to begin to pay volunteers but were facing eviction from their herbal garden by the University. Many of these developments have been reliant on a small number of staff who also give their time as volunteers (Tornaghi and Van Dyck 2015). The main focus of sustainability has been on surviving rather than scaling up to influence policy (Hargreaves 2013a). However, the partners, staff and volunteer have developed strong horizontal networks with other civil society project and also vertical networks with donors to provide a platform for long-term sustainability (Choudhury and Ahmed 2002, Franklin and Marsden 2015).

Franklin and Marsden (2015) make a strong argument for LAs to help support the development and effectiveness of sustainable place-making activities. Hull City Council

(HCC) has a clear focus on increasing local job opportunities through developing a Renewable Energy Industry, with this focus also providing a platform for reductions in CO₂ emissions (Jonas et al 2016). HCC has also developed a robust climate change policy although the policy has a limited focus on reducing CO₂ emissions from Council buildings. However, HCC has been ambiguous in its support for CSOs and sustainable place-making activities, with ad-hoc support reflecting the lack of a coherent strategy. This partly reflects a lack of resources, but also a history of not involving civil society in strategic decision making (Jonas et al 2016). LA21 has also lost its impact as a driver for LA strategies (Holland 2004). There are many positive examples of HCC staff supporting different sustainability-focused activities at an operational level. However, both GP staff and participants have been frustrated by lack of recognition including mixed messages over funding and lack of transparency in decision making. Urban agriculture is a clear example where there is a growing local movement which requires support, but stakeholders look elsewhere for support including the private sector and other CSOs, and with a heavy reliance on donor funding from the Lottery for larger projects.

Does the Green Prosperity project provide a platform for longer term engagement in environmental sustainability?

The GP project provided evidence of the potential for sustainable place-making projects to lead to individual and community-level social, economic and environmental outcomes (Holland 2004, Franklin and Marsden 2015, Parkhill et al 2015). However, there are critical questions whether projects such as GP should be supported to tackle wider environmental sustainability including climate change (Chatterton and Cutler 2008, Pearsall et al 2012, Bulkeley 2015). During the research participants were asked their views on links between their activities and environmental sustainability.

Many participants were motivated by contributing to tackling climate change by reducing carbon emissions and also wanted access to other activities such as support for solar panels. However, some participants were not motivated by reducing emissions or felt that they could not make a difference. Connecting participants more than climate change, respondents strongly voiced how they were motivated by other environmental values and actions such as improving the local environment, increasing biodiversity and recycling (analysis of the recycling survey identified very high rates of recycling providing evidence

of environmental motivations and values in the local area). A strong desire to educate children also emerged, with food growing, gardening and biodiversity seen as effective ways to engage children (Mason and Montalto 2015, Ampuero et al 2015, Holland 2016). Improving self-reliance was also personally important to many participants and seen as connected to both place-making and environmental sustainability, including through growing food and reducing energy usage. Elements of self-reliance and self-sufficiency are underexplored in wider concepts of place-making and environmental, social and economic sustainability, but have strong links to sustainable livelihoods (Scoones 1998).

Despite some participants not feeling a clear connection between being involved in the GP project and tackling climate change, GP stakeholders argued there is scope to build on their environmental values and actions to increase participants' engagement in climate change and knowledge of where actions can make a difference (Crane et al 2013, den Exter 2015, Franklin and Marsden 2015). GP project activities provided a platform for longer term engagement but GP staff strongly believed that HCC should take a lead in this area as part of a multi-stakeholder approach (Unsworth et al 2011, Holden and Larson 2015). GP stakeholders also believed there is the potential for HCC to be more supportive and described a range of positive developments that could provide a platform for change. This included HCC's support for the City of Culture, recycling, renewable energy, Hull's vulnerability to flooding acting as a further incentive and also the large number of local groups focusing on UA activities (Coulthard 2007, Bockarjova and Steg 2014, Jonas et al 2016).

Ideally, there should also be national government support to provide leadership, resources and practical support such as through guaranteeing Feed-in-Tariff rates to community renewable energy schemes (den Exter 2015, Parkhill et al 2015). Unfortunately, Central Government support is unlikely given the current government's focus on neo-liberal policies, austerity and reductions in funding to local government (Jonas et al 2016). In the absence of funding, local government can still take important steps to support community-level sustainability initiatives, including through recognition, strategy development, transparent decision making, more reflexive planning and enabling learning across activities (Franklin and Marsden 2015, Purcell and Tyman 2015). In the absence of a proactive role from national and local government, civil society is relying on support from donors which can change depending on donor priorities.

11.2) Nurturing shoots: overall conclusions and recommendations for policy and research

Sustainable place-making emerges as a strong framework for researching the impacts and challenges of the GP project (Franklin and Marsden 2015, Parkhill et al 2015). The GP project (and activities that continued and developed after the project finished) demonstrate that sustainable place-making can have clear beneficial social outcomes at individual and community levels, with social sustainability highlighted as being an essential aspect of sustainable development (WECD 1987, Agyeman 2008). The project also had some beneficial economic outcomes at an individual level including relating to reducing vulnerability to fuel poverty, which can also be framed as working towards social sustainability and justice (Walker and Day 2012, Snell et al 2015). The results of the project are questionable if viewed solely from the lens of environmental sustainability with the project not being able to demonstrate reductions in CO₂ emissions (Hargreaves et al 2010). However, staff and participants strongly voiced the importance of access to nature, the value of improving the local environment and discussed connections between local level actions on global level environmental concerns such as climate change and biodiversity (Bhatti et al 2009, Milbourne et al 2012, Holland et al 2016). Stakeholders also identified that these values and actions could be supported over the long-term to improve engagement in environmental outcomes, including engagement of marginalised people and school children (Mason and Montalto 2015, Ampuero et al 2015).

The research also adds to our understanding of sustainable place-making by reinforcing the importance of access to green spaces; building communities; tackling poverty; improving health and wellbeing; and also fun, enjoyment and working with others. However, the research also emphasises the importance to sustainable place-making of biodiversity (as a particular focus of improving access to green spaces); self-reliance; tackling justice issues; and the need for long term sustainability.

Civil society emerges as a leader in developing projects, engaging vulnerable people, developing social capital and working towards the long-term sustainability of outcomes (Seyfang et al 2013, Franklin and Marsden 2015). Many stakeholders felt that the wide range of improvements would not have been possible without the GP project as there were no other similar projects they could access. The project can therefore be seen to fit

within the framework of progressive localism identified by Featherstone et al (2012) and Crisp (2015) with CSO projects not supporting the rollback of the state, but supporting marginalised people most affected by the roll back of the state. In terms of long-term sustainability, the important role of CSOs is highlighted by the fact that no activities linked to the project were able to continue without ongoing civil society organisation support (White and Stirling 2013).

Long-term sustainability of projects is essential to embed individual and community level benefits, including social, economic and environmental outcomes. Unfortunately, the long-term sustainability of many community-level sustainable activities is fragile (White and Stirling 2013). The case study highlights that CSO internal governance arrangements (including partnership arrangements, management decision making and staff performance) impact on the effectiveness of activities and their long-term sustainability. For instance, CSOs might not have the skills and resources required to manage more complex interventions. CSOs also often need external support such as funding to run effective programmes, such as to support staffing costs or purchase technology (Kirwan et al 2013, Seyfang et al 2013, White and Stirling 2013). CSOs are then caught in a situation of responding to donor priorities and timescales which can mitigate against long term programming (Kirwan et al 2013, Creamer 2015). In addition, funding availability has reduced during recent years potentially linked to austerity driven policies (Lambie-Mumford 2014, Parkhill et al 2015). Without appropriate support, evidence from the project suggests that small-scale UA activities relying on volunteers and land are more likely to continue than more expensive projects requiring staff and technology, such as community energy (Martiskainen and Nolden 2015, Parkhill et al 2015). However, long-term land security is also an essential requirement for UA activities (Staeheli 2008, Purcell and Tyman 2015).

Holland (2004) and Franklin and Marsden (2015) make a strong argument for local authorities to support existing activities, help support new activities and scale-up participation and impacts. The potential for local authorities to provide support is also severely hampered by cuts and a lack of leadership from Central Government (Jonas et al 2016). Unfortunately, this lack of support is expected to continue given the austerity driven cuts to government expenditure at the time of writing and their reflection of a neoliberal ideology which prioritises free market solutions to social and environmental

sustainability (Featherstone et al 2012, Milbourne 2012, Tornaghi and Van Dyck 2015). However, despite a lack of funding, many stakeholders identified a range of actions that LAs could adopt to improve support for sustainable place-making activities including developing a realistic long term sustainable place-making strategy which guides decision making, planning, learning and support (Staeheli 2008, Franklin and Marsden 2015, Purcell and Tyman 2015). Local Authorities need to recognise the importance of community-level sustainable place-making and the essential role of civil society. In addition LAs need to ensure participation of civil society and marginalised groups in the development of policy (Snell et al 2015, Walker 2016).

If such a strategy can be developed there would then need to be a role for comprehensive monitoring and evaluation of environmental, social and economic outcomes at different levels, including through collaborative research of qualitative and quantitative outcomes (Khagram et al 2010, Mason and Montalto 2015). Further research is needed to identify if there are positive global environmental outcomes from sustainable place-making. In addition, there could be more research into how local environmental improvements can reduce poverty in the UK context (Fairburn et al 2009, Milbourne 2012).

Hull could be an ideal location to provide learning given the HCC's focus on renewable energy, the local UA movement, success of hosting the 2017 City of Culture, the lessons learned from the GP project, a local University beginning to get involved in sustainability activities, and a track record of innovative council policies including focusing on marginalised people (Colquhoun et al 2008, Jonas et al 2016, Walker 2016). These factors could provide Hull with a competitive edge for sustainable place-making in the UK (Bridge et al 2013).

In conclusion the research therefore supports the potential of sustainable place-making to have individual and community level social, economic and environmental benefits and provide a platform for global level environmental benefits (Holland 2004, Franklin and Marsden 2015). Practical sustainable place-making projects can help vulnerable people and engage people environmental sustainability. To support and scale-up activities, in the continued absence of support from national government, there needs to be effective joint working between civil society, communities, local authorities, donors and other partners

including universities, with leadership decided at a local level (Featherstone et al 2012, Milbourne 2012, Franklin and Marsden 2015).

Conceptual contribution

The research has reinforced sustainable place-making as an important emerging theory by providing detailed research of a project which improved the local environment, strengthened communities, improved health and well-being and tackled poverty in a disadvantaged area while also aiming to contribute towards tackling climate change. The research has strengthened the body of literature by focusing on a project which tried a wide range of activities including urban agriculture (UA) and community energy (CE), rather than focus on one intervention. UA activities underlined the importance of food growing as a way to build communities with health and wellbeing outcomes emerging as particularly important. The team of volunteers also helped to improve the local environment. In contrast CE activities had more of a financial impact, helping vulnerable households reduce expenditure on energy and the risks of fuel poverty. The concept of sustainable place-making proved more relevant to the project than theories of grassroots innovations and behaviour change which have less of a focus on community engagement and exploring benefits to vulnerable people.

Like other sustainable place-making projects reviewed in the literature, there were difficulties quantifying a contribution to reducing carbon footprints. However, the research has underlined the importance of engaging people in sustainable place-making as a step towards tackling wider environmental issues such as climate change. Improving the local environment (e.g. improving biodiversity and increasing recycling) emerged as an important link between local-level actions and wider environmental goals. The research has also brought out the importance of self-reliance, tackling justice issues and intergenerational work as part of sustainable place-making. For instance, in terms of tackling injustice, reducing vulnerability to food and fuel poverty helps address lack of recognition, and procedural and distributional justice issues. Tackling justice issues is essential in enabling vulnerable people use positive agency. Participants also voiced the importance of fun, enjoyment, accessing nature and working with friends and families (particularly through UA activities). These essential components of sustainable place-

making have been voiced by project participants including vulnerable people who have given back to their community taking the rare opportunity to be involved in a positive local project.

The research has highlighted the importance of project governance including the leadership and effectiveness of civil society, the impact of donors and the realities of local government support. Internal governance challenges are often overlooked in how they impact on sustainable development initiatives. In particular governance challenges have been viewed in terms of project effectiveness and long term sustainability and contrasts drawn between the different types of sustainable place-making activities and their outcomes. It is hoped that highlighting these governance challenges can lead to more open and transparent conversations between civil society, donors and government about what activities should be supported over the long term and how they can be improved.

Recommendations for policy and research

The research argues that there should effective support for sustainable place-making as an essential step towards global environmental sustainability (protecting biodiversity and tackling climate change) and to achieve local level social, environmental and economic outcomes. From the research I have developed six key recommendations to increase the scale and improve the effectiveness of sustainable place-making. I have allocated responsibility to different stakeholders focused on implementation, funding, strategic and policy support. A key requirement for many recommendations is joint working between local government, civil society, donors and communities on an equal basis. I have only called for direct Central Government support in the final recommendation given the trend of reduced support from the UK Central Government, however, increased funding and policy support from Central Government would benefit all recommendations.

1) Local Authorities should develop long term (e.g. 10 years) sustainable place-making strategies with participation from civil society, communities and marginalised groups.

This long-term strategy should be developed from the perspective of communities and civil society – a bottom-up strategy. There is a danger that local authorities can support more ambitious, complex and technocratic projects to increase investment. Ideally, there should be a skilled and experienced staff member responsible for strategy development,

supporting projects and the development of linkages with other local authority services. The Welsh Pathfinder Programme is considered a good practice approach that could provide a basis for developing support. There could be a focus on mapping and supporting UA activities initially, given the large number of UA activities, range of benefits, the potentially low resource requirements and practical support. The strategy could then develop to include support to other activities including community energy and increasing education and awareness. Leadership of the strategy implementation and support to civil society does not have to be led by local government staff, but could be by civil society organisations.

At a global level, Local Agenda 21 needs to be reinvigorated as a process to provide clear roles and responsibilities for cities and local authorities to tackle climate change including through support to sustainable place-making.

2) Local authorities, civil society and universities should work together to map out monitoring and evaluation requirements to capture individual, community and global level social, environmental and economic outcomes.

Within strategies there should be a focus on monitoring and evaluation. Monitoring and evaluation information is particularly important to build a picture of sustainable place-making that is taking place, share learning with local stakeholders and to communicate outcomes to policy makers. For instance, there are a range of gaps in the research including: mapping sustainable place-making activities and the number of participants; quantitative information on how sustainable place-making contributes to global environmental sustainability; engagement of hard-to reach groups such as young people; and also evidence of how improved local environments can help reduce poverty. Universities bring particular expertise in conducting independent research and ideally this would be cross-disciplinary and involve social science and climate change science.

3) Donors should allow scope to provide additional funding for effective activities after 3-year project time-frames.

This will require effective communication between donors and civil society towards the end of projects when activities have been implemented and lessons become apparent. This would also require reflexive M&E involving donors and civil society.

4) Civil society organisations should engage with donors and local authorities to decide on how to progress with struggling activities.

Civil society will need to be open with donors and local authorities to identify activities that are not having an impact throughout project implementation. There would then need to be open dialogue and transparent decision making of whether to support continuing activities or reallocate resources.

5) Stakeholders should prioritise biodiversity alongside tackling climate change as an essential aspect of sustainable place-making, environmental sustainability and as a method of engaging more people.

Focusing on increasing and protecting biodiversity has clear beneficial environmental outcomes at local and global levels and strengthens action to tackle climate change. A focus on biodiversity is also effective at engaging support from within communities, including school children, and donors, who might not engage with climate change. Sustainable place-making strategies and activities should include specific aims or activities to protect biodiversity. There could also be scope to build sustainable place-making into school curricula.

6) Central Government should provide practical support to sustainable place-making including discussing with civil society how to provide effective support to community energy initiatives.

This could be the most unrealistic recommendation given the trend for reduced UK government support. However, I have chosen community energy as an example which could act as a pilot for national government, civil society, donors and local authorities to work together to improve a specific sustainable place-making activity. The UK government used to provide proactive support before the abolition of the Department of Energy and Climate Change and it is clear that reduced support is restricting the community energy sector. Universities could also be involved in researching the impacts of community energy initiatives.

I conclude with these hopeful comments from a GP project staff member that the positive outcomes from a short-term sustainable place-making project could provide a platform for future work on a larger-scale to make a bigger impact. In the quote Hull is seen as providing an ideal opportunity given its new focus on renewable energy and green technology.

‘so if we started to focus more on environmental impact, and energy saving and climate change, and do activities based around that I think they’d [participants and volunteers] jump into that with us, so yeah, I think we could definitely work towards that as a goal.... and we could look to do more education of our project beneficiaries and volunteers..... get them in training on community cohesion and environmental sustainability and how they can have an impact on that themselves.. it would involve an adjustment in our focus, but yes it’s definitely something that could happen’

‘I think it would be good to widen it out and make it some part of a larger event, maybe get some organisations to feed into it....a lot of people talk about Siemens and the Green Power revolution, I don’t know if the city can be brought together to talk about these issues.... big business on board, or the council, or Hull University, or an amalgamation of all those kinds. As part of that I think it could be really interesting and productive’.

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Appendix 1) Field work: Interview questions and schedule

This appendix contains 2 sections: 1) the main question sheets I used at different stages during the GP project for staff, participants of the main activities and stakeholders. The question sheets were working documents which I used during semi-structured interviews to cover the main research questions and then asked follow-up questions during the interview and at other opportunities to probe issues and responses. For instance, with the project lead I probed on fundraising concerns including the landscape of donors and how much time was spent fundraising. The second section is a schedule of face to face interviews (recorded and transcribed) divided into 1) participants and 2) staff and stakeholders.

Part 1 – Interview questions

Questions to project staff

- 1) How did they get involved in Green Prosperity? Why?
- 2) How did they develop their ideas/ activities?
- 3) What were the main things they wanted to achieve? How did it go?
- 4) What are the main strengths and weaknesses
 - Of the food growing work?
 - Of volunteering?
 - Of energy monitors
 - Of other activities (eco-enterprise, eco-house, green-care)
 - Of Green Prosperity
 - Of the Partnership
- 5) Is gender an issue at the farm? What can be done about it?
- 6) What was the most successful activity and why?
- 7) What activity didn't work as well as you expected? And why?
- 8) Who were they mainly trying to target? Is it vulnerable residents or anyone in the local area- do you think it could have been more targeted?
- 9) What are there barriers of participation etc – Southcoates and Longhill?
- 10) Did the project stick rigidly to the plan? Should it?
- 11) Do you think the project is helping the local community? How?

- 12) How do they think sustainability is going to look? Do you see the council helping? Or local residents?

Prompt: *Two areas the project is trying to tackle in combination – one is around helping people in financial difficulties (e.g. Food and Fuel Poverty) and the other is around Environmental Sustainability.*

- 1) What are local residents motivations to get involved? Are residents interested in climate change? Broader issues of Food justice, Social Justice etc?
- 2) Are local people suffering from poverty (e.g. fuel poverty or food poverty)
- 3) Do you see the project helping to address environmental issues, could it provide a basis in the future?
- 4) Would you want to work towards environmental sustainability after three years? What would you do/ activities? See a role for environmental education and awareness – how would it work? What support would you want from the council, or other organisations?

Questions for Urban Agriculture and Community Garden volunteers

- 1) What have you signed up for? Any other friends or family involved?
- 2) Why get involved?
- 3) Had they been involved in any food growing activities before?
- 4) Why did you start gardening?
- 5) What do you get out of it? What are the 3 main benefits? (Probe)
- 6) *How are Different activities going?: Beekeeping, Family Growing, Eco-House, Volunteering, Horticulture college*
- 7) What do you enjoy most about being in the garden? **What does it mean to you?**
- 8) Have you enjoyed growing anything/ eating anything in particular?
- 9) What works well? Any weaknesses?
- 10) Family questions – have you got your family involved - Age, what do for a living, housing, garden?
- 11) Where are you from? How long have you lived here? How describe the local area?
- 12) Do you grow food at home? What? How is it going?
- 13) What do you do with the food from the project or growing at home?
- 14) Working? Is it OK with benefits officer being able to come to the garden?

Questions for people with mental health challenges:

- 1) Why do you come here?

- 2) What are the 3 main benefits?
- 3) Have you enjoyed growing anything/ eating anything in particular?
- 4) How is it going this year on a Wednesday? what is working well? Anything could be improved?
- 5) What are the main things you do?
- 6) Will you keep coming?
- 7) Can I ask what is the status of your care etc? How is it going?
- 8) Does coming to the garden help you? What would you be doing otherwise?
- 9) Do you go to any other projects in the day time?
- 10) Is there anything else the project could have done to support you? (maybe not possible, but help for the future)
- 11) Are you on any benefits?
- 12) Any other activities would be interested in? Horticultural course (Rob)?

Questions for community garden volunteers (post project sustainability)

- 1) How is everything going?
- 2) Are you comfortable coming on Wednesday?
- 3) Do you know what you are doing when you come in? Is there a plan? Are you happy with it?
- 4) Who do you ask if you need any help? How confident do you feel?
- 5) Do you know who the 3 post-holders (Chair, Treasurer, Secretary) are?
- 6) Do you know the plan for the garden (planting etc?) for the rest of the year?
- 7) Do you know what will happen to the food produced? Does it matter?
- 8) Do you want any new vols to join yet? when?
- 9) Any suggestions to improve things?
- 10) How do you want the community garden to be? How do you want to get there?

<p>Questions for Family Growing Project participants</p>

These questions were used towards the end of the family growing project. I also adapted these questions for the volunteer mentors.

- 1) What were there motivations for getting involved?
- 2) How confident were you growing food at the beginning of the project/ at the end of the project (out of 10)? Would you have grown food at home without the project?

- 3) What did work that they tried?
- 4) What didn't work that they tried?
- 5) What was there favourite thing that happened as a result of the project?
- 6) Any unexpected benefits?
- 7) What did you do with the food? Cook it, give it away etc?
- 8) Who got involved in the project from the family (friends)? What did they enjoy about the project?
- 9) What do you enjoy about being in the garden? What does it mean to you?
- 10) What would you have done if GP wasn't around?
- 11) Was the support that they got enough/ clear?
- 12) Were the resources that they got enough/ clear?
- 13) Anything else that could be improved? - *Could you have started planting earlier/ need a plan/ more regular visits*
- 14) Any other challenges related to the project? Or you personally? (e.g. busy life, working kids etc)
- 15) Would you try and grow over winter/ carry on into next year?
- 16) What support would you need? Or confident to do it on your own?
- 17) Would you go/ get involved to Seed Swap/ the farm/ Facebook pages/ work with neighbours/ allotments etc
- 18) If you were talking about the project to a friend what would you say had worked well? What would you say had been difficult?

<p>Questions for all Urban Agriculture participants: overall project aims</p>
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These questions were asked to all UA participants to check if the project was meeting its overall aims.

- 1) Do you think the project is helping the local community? How?

Prompt: Two areas the project is trying to tackle in combination – one is around helping people in financial difficulties (e.g. Food and Fuel Poverty) and the other is around Environmental Sustainability.

- 2) Does the project help people with financial difficulties:
- 3) One thing that has been in the news recently is use of food banks - Do you know anyone that has problems with food? Have you ever fallen into difficulties buying food? Do you know anyone who has used a food bank? Do you see this type of project as being able to help?

- 4) What about fuel poverty? Did you consider an energy monitor?
- 5) How could the project help you more? (reduce food, improve workability, improve health benefits)
- 6) How could it involve more people from the local community?
- 7) How be sustainable? How can it work with you to carry it on?
- 8) Do you see a link between food growing and environmental issues?
- 9) What do you think are the key environmental issues (local, or global) you think should be tackled?

<p>Questions for Community Energy participants</p>

- 1) What did you get from Green Prosperity? (Tariffs, EM, Power Down Plug, other advice)
- 2) Has anything saved you any money? How?
- 3) Have you applied for the warm home discount?
- 4) Can you tell me about your household? (e.g. number of people/ tenancy/ pay meter)?
- 5) How did you hear about the energy monitor? Why did you get one?
- 6) Have you changed your behaviour at all? How?
- 7) Are all your family supportive? Any problems?
- 8) Have you applied for or used other energy saving measures or help? Warm Zone? Green Deal? Heard of the big switch?
- 9) Has reductions in usage affected how warm your home is?
- 10) Have you any energy related worries?
- 11) Has energy costs or stresses caused any health issues?
- 12) Would you recommend having the energy monitor to anyone else? Or have you already?
- 13) Do you think the project is heling the local community? How?
Two areas the project is trying to tackle in combination – one is around helping people in financial difficulties (e.g. Food and Fuel Poverty) and the other is around Environmental Sustainability.
- 14) Does the project help people with financial difficulties:
- 15) One thing that has been in the news recently is fuel poverty - Do you know anyone that has problems with fuel poverty? Has it helped you with fuel poverty?
- 16) What about health, stress etc?

- 17) What about food poverty/ food parcels
- 18) How could the project help you more? (reduce food, improve workability, improve health benefits) – did you think about food growing?
- 19) How could it involve more people from the local community?
- 20) How be sustainable? How can it work with you to carry it on?
- 21) Do you see a link between food growing and environmental issues?
- 22) What do you think are the key environmental issues (local, or global) you think should be tackled?

Questions for Big Lottery Fund learning partnership
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- 1) What were the most successful projects and why?
- 2) What were the most successful activities?
- 3) Challenging activities e.g. eco-enterprises – why?
- 4) Strengths and weaknesses of the GP project in particular?
- 5) Anything you would like to see carry on?
- 6) Anything that the GP project should take away in learning? From other projects or more generally
- 7) Any activities you wish you had supported more? (e.g. local transport – bikes?)
- 8) Any comparison between CSO led projects and Council led projects? Or Council as a partner?
- 9) Should the Council have a role in supporting projects – or too weak/ impacted by funding.
- 10) Any lessons from weaker projects?

Wider aims and theories

- 11) Any tensions between environmental aims and economic aims?
- 12) Did projects support developments of a Green Economy?
- 13) Did projects achieve behaviour change? In what ways?
- 14) Do you think it successfully involved marginalised people in environmental sustainability?
- 15) Successfully targeting most in need? E.g. food and fuel poverty?
- 16) Irwell Valley had gone down a training and education route – should other projects do that?

Funding and sustainability

- 17) What did the lottery learn? NEF?
- 18) How well did all the different organisations worked with each other? Was reporting etc clear? NEF, Groundworks, CLS, individual project advisers
- 19) Was M&E information strong enough from across the projects?
- 20) Sustainability - do you think 3 years is long enough?
- 21) Any activities you would like to see carry on?
- 22) What road is BLF going down for future (continuation) funding of CLS projects?
- 23) Is BLF planning any future related projects?
- 24) What are your reflections of BLF as a donor?
- 25) How should environmental sustainability work be continued?

Questions for Hull City Council Climate Change Officer

HCC has developed an Environment and Climate Change Strategy 2010 to 2020 with a wide range of activities, but not focusing on raising education and awareness. The climate change officer also sits on the Affordable Warmth Group.

- 1) How the strategy was developed?
- 2) Was there any way of consulting with local people (participation) or other stakeholders?
- 3) Successes and challenges developing the strategy, (including partnerships with other organisations)?
- 4) What are the next steps etc.
- 5) Is there still a Climate Change advisory group attached to One Hull?
- 6) How does it fit with the one Hull strategy or Hull 2020 or the City Plan/ community strategy? What is the hierarchy of the different strategies?
- 7) How does the Green Prosperity project contribute to the strategy (energy monitor, food growing, participation of marginalised groups?)
- 8) Does Hull support community food growing activities? How? Is there a food policy? Which policy would it sit in
- 9) Is the focus climate change, or environmental sustainability? Is there a difference? E.g. local sustainability? Mentioned in One Hull
- 10) Are people interested in climate change? Do people see a link between Hull Floods and Climate Change? Or the heatwave in 2003?
- 11) Was there a city wide communications/ awareness raising strategy?

- 12) What is the role of place-making/ enjoying the local environment? (gardening, cycling, running etc)?
- 13) What could be done to support more community environmental projects in the future?
- 14) Do you see a link between social sustainability and environmental sustainability? Are there links to affordability work the council is doing?
- 15) Do you have to make compromises in strategy development? E.g. balance economic, environmental and social goals?
- 16) What can local councils do? What are the challenges to local council being able to do anything?
- 17) Does Central Government policy help or hinder?
- 18) Will having Siemens here/ renewable energy help/ provide any opportunity?

Part 2: Schedule of interviews

1) Participants

Interview number	Pseudonym	Type	Date
1		Volunteer	10 July 2014
2		Volunteer	14 July 2014
3		Volunteer	15 July 2014
4	Helen	Volunteer	04 August 2014
5		Volunteer	05 August 2014
6	Nancy	Volunteer	05 August 2014
7		Volunteer	05 August 2014
8		Volunteer	13 August 2014
9	Mr & Mrs Mitchell	Community energy	25 February 2015
10	Tim	Volunteer	11 March 2014
11	Derrick (with Mark)	Volunteer (and staff)	29 April 2015
12	Arthur	Volunteer	13 May 2015
13	David	Volunteer	13 May 2015
14	Connor	Volunteer	13 May 2015
15	Bel	Volunteer	13 May 2015
16	Gail (with Mark)	Volunteer	20 May 2015
17		Volunteer	20 May 2015
18	Paul	Volunteer	10 June 2015
19	Nancy	Volunteer	10 June 2015
20	Helen	Volunteer	10 June 2015
21	Justin	UA Participant (FGP)	18 June 2015
22	Will	UA Participant (FGP)	18 June 2015
23	Alison	UA Participant (FGP)	22 June 2015
24	Rachel	UA Participant (FGP)	22 June 2015
25		UA Participant (FGP)	22 June 2015

26		UA Participant (FGP)	22 June 2015
27	Sonia	UA Participant (FGP)	02 July 2015
28		Volunteer	08 July 2015
29	Bel	Volunteer	08 July 2015
30	Tony	Volunteer	09 July 2015
31	Saado, Bashi & Usman	UA participants (MBD)	13 July 2015
32	Bill	Volunteer	22 July 2015
33	Romelu	UA participant (MBD)	27 July 2015
34	Gloria	Volunteer/ SFGP	24 September 2015
35	Mandy	Volunteer/ SFGP	14 October 2015
36	Chris	Volunteer	14 October 2015
37	Derrick	Volunteer	14 October 2015
38		Volunteer (FGP)	19 October 2015
39	Steve	UA Participant (FGP)	19 October 2015
40		UA Participant (SFGP)	19 October 2015
41	Helen	Volunteer and CE	21 October 2015
42	Nancy	Volunteer	21 October 2015
43	Alison	UA Participant (FGP) and CE	21 October 2015
44	Justin	UA Participant (FGP)	21 October 2015
45	Rachel	UA Participant (FGP) and CE	21 October 2015
46	Will	UA Participant (FGP) and CE	22 October 2015
47	Barbara	UA Participant (FGP) and CE	22 October 2015
48	Sonia	UA Participant (FGP)	22 October 2015
49		UA Participant (SFGP)	22 October 2015
50	Nancy	Volunteer	04 November 2015
51	Sarah	UA Participant (FGP) and CE	09 November 2015
52		Volunteer (FGP)	10 November 2015
53	Graham (with case worker)	Volunteer	18 November 2015
54	Tim	Volunteer	18 November 2015
55	Arthur	Volunteer	18 November 2015
56	Mr & Mrs Franklin	CE participant	19 November 2015
57		CE participant	19 November 2015
58	Mandy & Chris	Volunteers	25 November 2015
59	Tim	Volunteer	25 November 2015
60	Gail	Volunteer and CE	02 December 2015
61	Bill (with Mark)	Volunteer	07 December 2015
62	Beekeepers	UA Participants	07 December 2015
63		UA Participant (FGP and Festival)	07 December 2015

64	Tony	Volunteer	07 December 2015
65	Festival Focus Group	Volunteers and Stakeholders	07 December 2015
66	Connor	Volunteer	16 December 2015
67		Volunteer/ Festival Stakeholder	06 January 2016
68	Arthur and Tony	Volunteers	07 March 2016
69	Graham (with mum and Mark)	Volunteer	13 April 2016
70	Paul (with Mark)	Volunteer	13 April 2016
71	Arthur	Volunteer	02 November 2016
72	Derrick	Volunteer	02 November 2016

2) Staff and stakeholders

1	Activity Coordinator	Probe staff	24 March 2015
2	Eden Project	Stakeholder UA plus CE user	07 May 2015
3	Kate	Probe staff	16 June 2015
4	Thanet School	S/holder	16 June 2015
5	Admin Assistant	EMS staff	25 June 2015
6	Small FGP	Probe staff	01 July 2015
7	Mark	EMS staff	09 July 2015
8	Peter	EMS staff	09 July 2015
9	Val	EMS staff	13 July 2015
10	Mark	EMS staff	13 July 2015
11	HCC Financial Inclusion Officer	Stakeholder	16 July 2015
12	HCC Adult Education officer	Stakeholder	16 July 2015
13	Mark	EMS staff	21 July 2015
14	Refugee Council	Stakeholder	27 July 2015
15	Green-Care	Freedom Centre Staff	14 October 2015
16	HCC Climate Change Officer	Stakeholder	22 October 2015
17	Brendan	Probe staff	09 November 2015
18	P&F Warden	Stakeholder	19 November 2015
19	John & Jane	Probe Management Team	19 November 2015
20	UA beekeeping staff and Festival Volunteer	Probe staff	15 November 2015
21	Food4Hull	Stakeholder (UA)	02 December 2015
22	ERVAS (volunteer and Festival volunteer)	Stakeholder (UA)	14 December 2015
23	St Mary's Church	Stakeholder (UA)	14 December 2015

	(Festival)		
24	Mark	EMS staff	06 January 2016
25	Post-doc researcher	Stakeholder (CE)	16 January 2016
26	Alistair	Stakeholder (CLS)	19 January 2016
27	Margaret	Stakeholder (CLS)	21 January 2016
28	Val	EMS staff	27 January 2016
29	Post-doctoral Researcher	Stakeholder (CLS)	27 January 2016
30	Green-Care	Freedom Centre Staff	07 April 2016
31	Linda	Probe/ EHCF staff	02 November 2016
32	HCC Planner	Stakeholder	09 November 2016
33	HCC Affordable Warmth Strategy lead	Stakeholder	09 November 2016
34	Mark	EMS staff	09 November 2016
35	Val	EMS staff	23 November 2016
36	Secretary (and local resident)	EMS staff	23 November 2016
37	Peter	EMS staff	23 November 2016
38	EMS Board Member and Charity lead	Stakeholder	23 November 2016

Appendix 2) Statistical analysis of environmental behaviour survey

Introduction

The GP project conducted a survey of respondents in Hull to questions of waste recycling, growing your own food and volunteering. The survey had a target response of 1,000 and was conducted across Hull in 2013/ 2014 with a priority of responses from the target wards and surrounding areas of east Hull – there was no further sampling used.

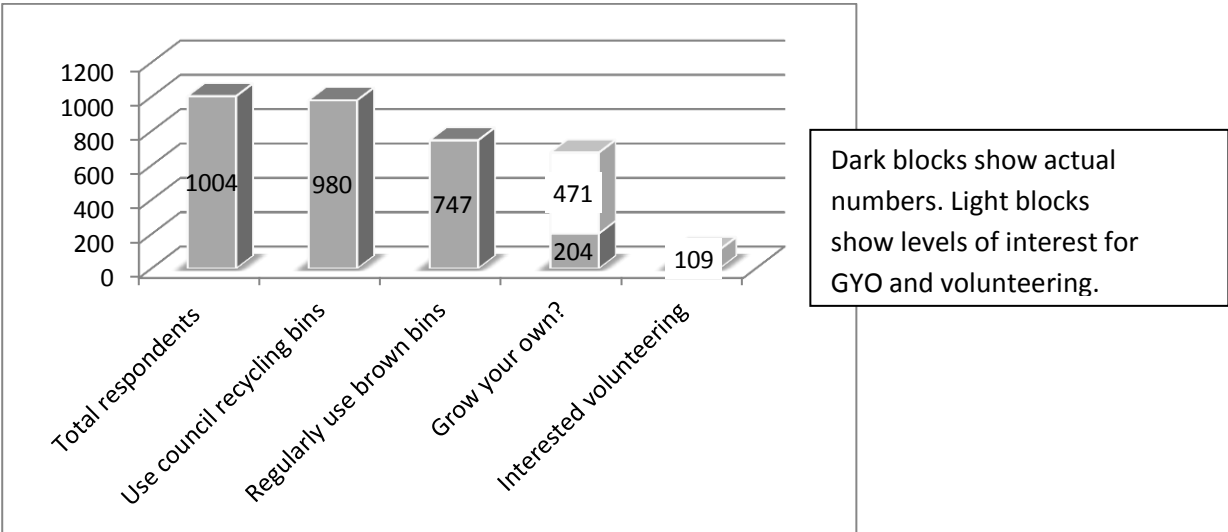
I analysed the survey results in three different ways:

1. Overall analysis of results using excel
2. Significance testing of bivariate analysis of statistical relationships (using SPSS).
3. Multi-level modelling (using MlwiN).

The findings from each type of analysis are presented below. The main focus of the survey was to identify recycling behaviour to determine if there was scope for further work to improve recycling rates. Questions were also asked relating to growing your own food and volunteering to provide information on people who might be interested in other GP activities, and respondents were contacted by UA and energy efficiency activity managers.

1) Overall findings

The chart below shows the numbers of respondents, levels of recycling, interest in growing your own food (combined actual and interest), and interest in volunteering.



Stated use of council recycling bins is very high at 98%. However, further analysis shows that only 75% regularly use their brown bin. Overall 70% of respondents either wanted to grow their own food or already did, with 471 respondents (49%) wanting to grow their food, indicating good scope for supporting this area. In contrast, there was a low interest expressed in volunteering – 11%.

2) Bivariate analysis in SPSS

Analysis of statistical relationship is explored below. In summary, property type and household type have a relationships with brown bin recycling (both highly significant), growing your own food (both highly significant) and volunteering (both significant). Other demographic factors have less of a significant relationship across all three outcomes.

Recycling (including regular use of brown bin)

There was a highly significant relationship ($p=.000$) between ethnicity and those that answered they do not use any recycling bins provided by the council, with higher admission by non 'white-British' residents (confirmed by Fisher's exact test). There were no other significant relationships from other demographic variables to use of council recycling bins (property type was highly significant, but too many blank cells).

Further analysis was conducted on **brown bin** recycling, as frequency of brown bin recycling was less than for blue bins. Property type ($p=.000$) and household type ($p=.000$) emerge as having a highly significant relationship with brown bin recycling, with those living in flats and maisonettes and single occupancy household less likely to recycle. In addition, the relationship between property band (but not household type) and brown bin recycling was highly significant in Longhill ($p=.000$), but not in Southcoates East (where too many blank cells). Ethnicity lost its significance ($p=.359$).

Gender of respondent, also has a significant relationship with brown bin recycling ($p=.010$), with couples who responded most likely to recycle. However, this variable was affected by lack of responses – gender was not asked as a specific question but identified through name, and in some cases couples answered. Gender of household head was not asked.

There was no significant relationship between age group (0.293), longstanding illness (.506), or location (0.449) on propensity for brown bin recycling. However, when analysing more than one variable it emerged that there was a significant relationship between older residents in Longhill and higher levels of brown bin recycling ($p=0.38$), but not for Southcoates East or other areas.

Grow your own food

Age ($p=.000$) and household type ($p=.000$) emerge as variables with a highly significant relationship to already and being interested in grow your own food. Older people are more likely to be already growing their own food, with those not growing their own food less likely to want to start. Age is particularly significant in Longhill $p=.001$, but not Southcoates East $p=.109$). People from single occupancy households and 'other' households are also less likely to want to grow their own food.

Property type has a significant relationship ($p=.018$), with interest in or already growing your own food declining relative to the size of house. For instance, 52.7% of those living in flats and maisonettes are not interested compared to an average of 32%. Area also has a significant relationship ($p=.014$) with those from Longhill the least interested in growing your own food (39% not interested), and residents from outside East Hull having the most interest (27.3% not interested). Long standing illness had a significant relationship ($p=.036$), confirmed by Fisher's exact test) with not wanting to grow your own food, particularly in Southcoates East ($p=.010$). There was no significant relationship from gender ($p=.102$), or ethnicity ($p=.535$) to wanting to growing your own food.

Volunteering

Responses in this question were affected by lack of clear information on what kind of volunteering people would be able to do. This could be because the project is not yet clear on the volunteering opportunities it is offering to residents.

Ethnicity has a highly significant relationship with interest in volunteering, with non white-British more likely to be interested to volunteer ($p=.001$ – Fisher's exact test) – 31% interested to volunteer compared to 10.1%. There is also a significant relationship between volunteering and household ($p=.024$) and property types ($p=.021$), with single occupancy/ and those living in flats and maisonettes more likely to want to volunteer.

There is a highly significant relationship in Longhill ($p=.000$) between people in flats and maisonettes and people interested in volunteering. There is no significant relationship from age ($p=.140$), gender ($p=.321$), longstanding illness ($p=.792$), or location ($p=.114$) to volunteering.

3) Multi-level modelling

I focused multilevel modelling and fitting a single-level logit model in MlwiN for 3 dependent variables identified in the dataset/ survey which were coded into binary answers:

- 1) Regularly conducting recycling (Yes/ No)
- 2) Interested in Grow Your Own food (Yes/ No)
- 3) Interested in volunteering (Yes/ No)

This testing builds on the previous bivariate analysis by allowing identification of whether multiple variables (such as gender, age and household type) and hierarchies, including geography, explain variations in the outcome or dependent variables (recycling, growing your own food or volunteering), and identify the association or significance between that independent variable and the dependent variable. I was also able to bring in analysis of clustering or grouping by postcode sector. Postcode sectors are one level higher than units e.g. Sector - HU9 7 compared to Unit - HU9 7JG.

The multi-level modelling analysis allows analysis of both the odds of an event and also the significance of the explanatory variables. I focused on logistic regression due to the questions asked in the survey which collected a range of categorical data for both response variables (dichotomous) and explanatory variables. No interval level data (e.g. actual age or income) was collected in the survey and therefore there was no scope to conduct linear regression analysis.

The constant/ reference for testing was selected as female, from Southcoates East, under 40, with family, living in terraced house, white British and no long standing illness, and interested in environmental behaviour. Results are highlighted where significant >1.96 . A two-level logit model was also tested for the effect of postcodes by cluster. This was found

to be significant for growing your own food but not for recycling or volunteering – therefore these results from grow your own food are also included.

Recycling (including regular use of brown bin)

Males are 1/3 less likely to recycle than females (significant). In terms of location, people from other are less likely to recycle, but this is not significant. Age and ethnic group are also not significant. Household and property are significant with people from single occupancy households half as likely to recycle than families. People living in semi-detached and larger households are 1.56 times more likely to recycle than people in terraced housing.

PARAMETER		ESTIMATE	S. ERROR(U)	Z	PREV. ESTIMATE	Exp (b)
Cons		1.156	0.2477	4.67	1.156	3.18
Gender:	M	-0.4201	0.1862	-2.26	-0.4201	0.66
	Both	0.7683	1.059	0.73	0.7629	2.16
Location:	Hull East (rest)	-0.02265	0.2449	-0.09	-0.02264	0.98
	Other	-0.08173	0.2621	-0.31	-0.08172	0.92
	Longhill	-0.04112	0.2606	-0.16	-0.04112	0.96
Age:	40-59	0.3571	0.2041	1.75	0.3571	1.43
	Over 60	0.4029	0.2581	1.56	0.4028	1.50
LS Illness	Yes	-0.07702	0.211	-0.37	-0.07701	0.93
Ethnicity	Non-white					
	British	-0.1466	0.4758	-0.31	-0.1466	0.86
Household	Couple	0.1934	0.2587	0.75	0.1934	1.21
	Other	-0.3751	0.4931	-0.76	-0.3751	0.69
	Single Occ	-0.6502	0.2373	-2.74	-0.6502	0.52
Property:	Semiplus	0.4558	0.182	2.50	0.4558	1.58
	Flat or M	-0.5794	0.3331	-1.74	-0.5794	0.56

	Other	0.2181	0.4731	0.46	0.2181	1.24
GYO?	Not int GYO	-0.08339	0.1814	-0.46	-0.08339	0.92

Grow your own food (1 level and 2 level with postcode)

- Gender and location are not significant
- Age is significant with over 60s are half as likely to be interested in growing their own food (across both models, therefore across postcodes).
- Household is also significant for single occupancy households who are half as likely to grow their own food. However, with the inclusion of postcode sector in the two level model, household reduces in significance, suggesting postcode clustering (where there might be similar household types) is a factor.
- Property type is significant for people living in flats and maisonettes have 3 times less odds of being interested in growing their own food, although the odds reduce when postcodes are included in the analysis.
- People not interested in volunteering have over 10 times less chance of being interested in growing their own food (across both models).

1 level

	PARAMETER	ESTIMATE	S. ERROR(U)	Z	PREV. ESTIMATE	Exp (b)
	Cons	3.43	0.50	6.86	3.43	30.74
Gender	M	0.02	0.18	0.10	0.02	1.02
	Both	0.54	0.69	0.78	0.54	1.71
Location	Hull East (rest)	-0.10	0.22	-0.47	-0.10	0.90
	Other	0.21	0.25	0.86	0.21	1.24
	Longhill	-0.28	0.23	-1.20	-0.28	0.76
Age	40-59	-0.37	0.19	-1.93	-0.37	0.69

	Over 60	-0.64	0.24	-2.71	-0.64	0.53
LS Illness	Yes	0.00	0.19	0.01	0.00	1.00
Ethnicity	Non-white British	-0.20	0.49	-0.41	-0.20	0.81
Household	Couple	0.10	0.23	0.44	0.10	1.11
	Other	0.59	0.59	1.01	0.59	1.81
	Single Occ	-0.59	0.23	-2.62	-0.59	0.55
Property	Semi&larger	0.13	0.17	0.78	0.13	1.14
	Flat or M	-1.10	0.36	-3.02	-1.10	0.33
	Other	0.15	0.42	0.36	0.15	1.16
Volunteering	Not interested	-2.39	0.44	-5.36	-2.39	0.09

2 level with postcode sector as a cluster.

	PARAMETER	ESTIMATE	S. ERROR(U) P	Z	REV. ESTIMATE	Exp (b)
	Cons	3.24	0.52	6.26	3.24	25.50
Gender	M	0.03	0.22	0.16	0.03	1.04
	Both	0.56	0.83	0.67	0.56	1.74
Age	40-59	-0.35	0.24	-1.44	-0.35	0.71
	Over 60	-0.59	0.30	-2.01	-0.59	0.55
Long Standing Illness	Yes	-0.05	0.24	-0.20	-0.05	0.95
Ethnicity	Non white British	-0.01	0.59	-0.02	-0.01	0.99
Household	Couple	0.17	0.28	0.63	0.17	1.19

	Other	0.70	0.68	1.03	0.70	2.01
	Single Occ	-0.54	0.28	-1.88	-0.53	0.59
Property	Semi&larger	0.17	0.21	0.81	0.17	1.19
	Flat or M	-1.09	0.45	-2.44	-1.09	0.34
	Other	0.12	0.52	0.23	0.12	1.13
Int Vol?	No	-2.26	0.48	-4.70	-2.26	0.10
2 cons	/cons	1.654	0.3314	4.99		

*Test statistic of 24.909

Volunteering

- Location is significant with other areas of Hull being over 2.3 times more likely to volunteer.
- Household is also significant with single occupancy being over twice as likely to volunteer.
- No other factors are significant.

PARAMETER		ESTIMATE	S. ERROR(U)	Z	PREV. ESTIMATE	Exp (b)
Cons		-2.527	0.3766	-6.71	-2.527	0.080
Gender	M	0.3513	0.2437	1.44	0.3513	1.421
	Both	-0.1456	1.083	-0.13	-0.1456	0.865
Location:	Hull East (rest)	0.5958	0.3683	1.62	0.5958	1.814
	Other	0.8398	0.3717	2.26	0.8397	2.316
	Longhill	0.7453	0.3868	1.93	0.7453	2.107
Age	40-59	-0.09793	0.2573	-0.38	-0.09792	0.907
	Over 60	-0.4289	0.3523	-1.22	-0.4288	0.651

LSI	Yes	-0.03091	0.2908	-0.11	-0.03092	0.970
Ethnicity	Non-white					
	British	0.5697	0.5467	1.04	0.5698	1.768
Household	Couple	0.07767	0.3209	0.24	0.07767	1.081
	Other	0.7098	0.5909	1.20	0.7098	2.033
	Single Occ	0.6977	0.3201	2.18	0.6977	2.009
Property:	Semi&larger	0.2187	0.2381	0.92	0.2186	1.244
	Flat or M	0.8477	0.4506	1.88	0.8476	2.334
	Other	-1.016	1.058	-0.96	-1.016	0.362

4) Discussion of results

Overall recycling rates were high 98% of respondents identifying they regularly use their blue recycling bin for items including paper and plastic and 75% regularly using the brown recycling bin for compostable items. 70% of respondents were already growing their own (20%) or interested in growing their own food (50%), and 10% were interested in some kind of volunteering. This indicates a range of pro-environmental behaviour and interest in being supported to do more activities. Bivariate and multi-level modelling identified variation by different demographic variables, including for recycling.

Bivariate analysis identified that in general property type and household type had the most significant relationships with brown bin recycling (both highly significant), growing your own food (both highly significant) and volunteering (both significant). Other demographic factors have less of a significant relationship across all three outcomes.

The multi-level analysis reinforces the significant relationship between household type to recycling, growing your own food and volunteering. In particular single occupancy households are less likely to recycle and be interested in growing their own food, but more interested to volunteer. However, household type reduces in significance for growing your own food when postcode sector is included in the model, with the results suggesting postcode sectors are a significant factor.

In addition, there are interesting considerations for the project relating to location. In the one level test without clustering, location is not significant for growing your own food and recycling. However, there is a significant relationship between volunteering and location with residents of Southcoates East less likely to volunteer compared to other areas of Hull.

Bivariate analysis raised interesting issues relating to location, ethnicity, and long term illness which multi-level modelling explained was influenced by more likely factors particularly household type.

The potential to focus on households including single occupancy households as highlighted in these tests is important information for the project.