# Tackling Climate Change through Community:
## The Politics and Practice of the Low Carbon Communities Challenge

Richard Hauxwell-Baldwin

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**University of East Anglia - School of Environmental Sciences**

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# Abstract

Despite claims by academics and policymakers that community may offer a potentially useful context through which to tackle climate change, there is limited empirical evidence to support such an assertion. This thesis sets out to address that gap. Drawing on theories of the governance of environmental change, community, social interaction, and governmentality, it presents a qualitative case-study of the Low Carbon Communities Challenge (LCCC). The LCCC was a United Kingdom government funded policy experiment intended to develop understandings of how to deliver the transition to low carbon living at the community level.

The thesis highlights a conflict between the instrumental understanding of community as a delivery-mechanism for government policy on environmental change, and the normative understanding of community based on social relations and identification with place held by residents in the communities studied. Applied instrumentally, community offered participants a largely ineffective mechanism by which to alter the social dynamics and patterns of normal behaviour within their households towards low(er) carbon lifestyles. Viewed narrowly through the stated purpose of the LCCC, it could be interpreted as a failed experiment as a result of the resistance of community members to adopting the carbon-conscious subjectivity imposed on them. However the thesis suggests that from a governmentality perspective, an alternative interpretation is that the LCCC served to reinforce neoliberal rationality which contends that community is not capable of tackling climate change and that the market, which may in turn appropriate community, is the only way forward. The thesis concludes by setting out a number of practical and conceptual implications for future research, and outlines the beginnings of a new, critical research agenda into the role of community in tackling climate change.

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## List of Abbreviations

BCT – Blacon Community Trust
BEMP – Blacon Energy Management Program
BES – Big Energy Shift
BRE – Building Research Establishment
DECC – Department for Energy and Climate Change
DEFRA - Department for Environment, Food and Rural Affairs
FiT – Feed in tariff
GHG - Greenhouse gas
GHM – Green Home Makeover
GLA – Greater London Authority
IPCC - Intergovernmental Panel on Climate Change
LCCC – Low Carbon Communities Challenge
LCTP – Low Carbon Transition Plan
LCZ – Low Carbon Zone
LGA – Local Government Association
MHSG – Muswell Hill Sustainability Group
MPT – Meadows Partnership Trust
NCH – Nottingham City Homes
PV - Photovoltaic
SDC – Sustainable Development Commission
TPB – Theory of Planned Behaviour
UEA – University of East Anglia
UK – United Kingdom

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# Chapter 1 Introduction

Governments around the world have been introducing policies aimed at tackling climate change based on an understanding of it as a physical reality with the potential to create significant social, economic and political instability during the course of the twenty-first century. Despite the contested nature of climate change and whether there is a need to 'tackle' it at all (Hulme 2009), it has achieved the status of a global mega-problem requiring multi-lateral co-ordination in the form of treaties such as the Kyoto Protocol and state action such as the United Kingdom (UK) Government's Climate Change Act (2008).

The Climate Change Act (2008) (hereafter 'the Act') was the first law created by a nation state designed specifically to deal with climate change and greenhouse gas emission reductions. The Act set out a strategic framework for emission reduction targets and mechanisms for monitoring the Government's progress in achieving them. The policy objectives of the Act are to avoid the impacts of 'dangerous climate change' in an economically sound way through the implementation of an economically credible emissions reduction pathway to 2050 (DEFRA 2007). This in turn is intended to help the UK transition towards a low carbon economy, as well as demonstrating the UK Government's leadership on the global climate change negotiating stage (DEFRA 2008a).

As part of its obligations under the Act, the Government published a White Paper setting out a pathway to a low carbon future – The UK Low Carbon Transition Plan (LCTP) (HM Government 2009). The LCTP represented the latest in a series of top-down policy initiatives aimed at encouraging individuals and businesses to change their behaviour to tackle climate change (e.g. HM Government 2005; DEFRA 2008b). It linked infrastructural change in the manner in which energy is

provided with addressing behavioural change as part of the Government's efforts to reduce carbon dioxide emissions for the United Kingdom by 80% by 2050 against a 1990 baseline, with multiple references to community as a means through which to achieve such change being made.

The interest in community and its ability to achieve positive social change is not new in UK Government policy. Appeals to community as a normative concept formed a central part of New Labour's 'Third Way' of governing that sought, among other outcomes, to reduce social exclusion and increase neighbourhood cohesion through appeals to a strong sense of local identity and shared experience (Giddens 1998). Appeals to community as an agent of positive social change also appear frequently in the 'Big Society' agenda of the Conservative-led coalition currently governing the UK. However the recent interest in and development of policies transferring the principles of the Third Way and Big Society from social policy to environmental and climate change policy represents a departure from the more traditional, individualist approaches to governing environmental change that have hitherto been a central feature of UK Government policy on climate change.

Previous behavioural change campaigns such as 'Helping the Earth Begins at Home' and 'Act on CO2' were based on the rationalist assumption that the primary cause of environmentally unsound behaviour is an information deficit amongst individuals in the population, and that by providing appropriate messages such behaviours can be corrected (Burgess *et al.* 2003). Yet research suggests that pro-environmental campaigns based on this assumption have been unsuccessful (Hinchcliffe 1996; Collins *et al.* 2003; HM Government 2005; Owens and Driffill 2006).

By way of contrast it is thought that community-based organisations such as schools, places of worship and sports clubs may be able to mobilise their members toward pro-environmentally friendly behaviour as they have important influences on how members of the community lead their lives (Putnam 2000; Gardner and Stern 2002; Jackson 2005). The close proximity that community organisations have to their members suggests they are in a position to target effectively those individuals within the community group with appropriate, relevant messages to encourage change towards environmentally sustainable behaviours (McKenzie-Mohr 2002; Jackson 2005).

The recognition of the perceived potential of community to deliver a change in social norms is evident in the LCTP:

> ‘We often achieve more acting together than as individuals. The role of the Government should be to create an environment where the innovation and ideas of communities can flourish, and people feel supported in making informed choices, so that living greener lives becomes easy and the norm.’
>
> (HM Government 2009, p. 92)

Yet as Jackson observes towards the end of his one-hundred and thirty page review of consumer behaviour and models of behavioural change:

> ‘There are some strong suggestions that participatory community-based processes could offer effective avenues for exploring pro-environmental and pro-social behavioural change. There are even some examples of such initiatives which appear to have some success.
>
> What is missing from this evidence base, at present, is unequivocal proof that community-based initiatives can achieve the level of behavioural change necessary to meet environmental and social objectives. There is simply not enough experience across enough areas and covering all the relevant parameters to determine precisely what form such initiatives should take, how they should be supported, what the best relationship between community-based social change and Government is, how relations between communities should be mediated, or what kinds of resources such initiatives require for success.

> In these circumstances, there is an evident need to proceed with care, to develop and design pilot community-based schemes in a participatory fashion, to monitor the impact of these schemes and to 'consumer proof' policy initiatives carefully over time.'
>
> (Jackson 2005, p. 133)

In short, the rhetoric of community suggests it may offer a means by which to address a range of social and environmental problems, but there is a lack of empirical evidence to support such assertions. The first contribution of this thesis is therefore to provide evidence of the ability of community to meet the claims being made of it. However before embarking on such an endeavour there is a need to step back and reflect critically on Jackson's assertion regarding the ability of community to deliver positive social and environmental change: what is it that he is referring to when he speaks of 'community', how does it go about breaking habits and devising new social norms, and based on whose environmental objectives? As Walker (2011, p. 778) has argued, there is a need to be open to a 'more problematic reality' of community than may be evident in current policy and campaigning rhetoric, along with the adoption of a critical perspective that recognises the contested nature of community. It is the critical perspective that Walker calls for that guides the research undertaken for this thesis, the overarching question it asks being: How, if at all, does community contribute to tackling climate change?

In order to answer it, and begin to provide the critical perspective currently lacking, this thesis offers a detailed case-study analysis of a UK Government funded policy initiative, the Low Carbon Communities Challenge (LCCC).

## *1.1 The Low Carbon Communities Challenge*

The LCCC was a two-year, £10m research project organised by the UK Government's Department of Energy and Climate Change (DECC) that ran between

February 2010 and February 2012. It awarded funding of up to £500,000 to twenty-two winning applicants in order to enable communities to 'transform the way you use and possibly even produce energy and build new ways of supporting more sustainable living' (DECC 2009).

The origins of the LCCC were in the Big Energy Shift[1] (BES), a large-scale public dialogue program designed to identify barriers and opportunities across a range of public and private sectors to wide scale uptake of renewable energy technologies. The BES findings suggested the potential benefits of the active participation of citizens in creating and delivering community-based solutions to a perceived energy problem. From these findings the idea emerged for the LCCC to act as a 'test-bed' to:

> 'help government, local communities and a range of parties involved in the UK transition to greener, low carbon living understand how best to deliver this transition at community level….We will do this by working with 20 'test-bed' communities already facing change in the area as a result of green or low carbon infrastructure or behavioural measures, and with an interest in using this to spur the development of broader plans for cutting carbon emissions in their area…[…]…The Challenge is about involving a broad section of people living and working in communities to develop plans for their area that integrate technology or infrastructure – such as wind farms, electric cars or home energy refurbishments – with financial and behavioural measures to create a broader low carbon area or 'zone'.'
>
> (DECC 2009, p. 1)

DECC awarded funding to a mix of urban, rural and suburban communities, a mix of income groups, and populations ranging from around 1,000 to 20,000. Ninety-percent of the funding had to be spent on capital measures, with the remaining ten-percent available for project management related costs. Funding was

[1] For more information visit http://www.sciencewise-erc.org.uk/cms/the-big-energy-shift/.

awarded in two stages, with the first ten winners announced on 19 December 2009 and the remainder on 04 February 2010.

In May 2010 a general election was held in the United Kingdom that resulted in a change of Government, with the centre-left Labour administration being replaced by a centre-right coalition led by the Conservative Party. The coalition placed a freeze on awarding funding for the second phase of the LCCC while they conducted a broader, Government-wide spending review. Only the first ten winners had received funding as I began my research as this had been awarded and spent prior to the election. As a result my research focussed on this group (shown in Table 1.1) from which three were subsequently chosen as the focus of my research (details on how this selection was made are provided in Section 3.2).

**Table 1.1 DECC LCCC Phase One winners**

| **West Oxford Community Renewables, Oxford (WOCR)** |
| --- |
| To pilot a community renewables building society' that will support the development of an integrated approach to low carbon living in West Oxford. The funding will be used by the West Oxford Community Renewables Industrial and Provident Society to develop a £1.6m pipeline of renewable energy projects. The income from these will be donated to the Low Carbon West Oxford charity to develop low carbon projects with the aim of achieving an 80% reduction in emissions in West Oxford by 2050. |
| **Ellen MacArthur Foundation, Chale Green, Isle of Wight (Chale Green)** |
| Bringing an entire rural off grid community out of fuel poverty, with an integrated approach to reducing carbon. Additional funding is provided by the social landlord to ensure the properties are upgraded to Decent Homes and Ellen MacArthur Foundation is supporting the project management and behaviour change elements of the project. The entire village will benefit from the social improvements and a number of PV installations throughout the estate will feed a community managed funding initiative to ensure the project continues to support the village improvements for years to come. |
| **Norfolk CC, Reepham, Norfolk (Reepham)** |
| LCCC funding will allow Reepham to reduce its CO2 by 127 tonnes per year by using a community fund to deliver a comprehensive range of projects which target; energy efficient renovation, renewables, transport, behavioural change & food initiatives. The Norfolk County Council scheme is replicable and is well supported by partner organisations, committed community leaders and the wider community. |
| **Lammas Low Impact Initiatives Ltd, Pembrokeshire, Wales (Lammas)** |
| The focus of the application is a community hub building which will become a hub for the village and a centre for education on low impact living for the wider world. The outcome would be a replicable, integrated rural sustainable development model. The project will be delivered using a combination of green technologies, permaculture cultivation methods and natural building techniques. |

| **Transition Town Totnes, Devon (Transition Streets)** |
| --- |
| The proposal will take the form of 'Transition Streets', whereby 12 streets across Totnes, chosen so as to represent the demographics and housing stock of Totnes, undertake a programme of behaviour change called 'Transition Together'. Participants are then eligible to apply for subsidised retrofits and then to a rolling fund for low interest loans for domestic renewables, harnessing feed in tariffs to enable the repayment of the loans. |
| **The Meadows Partnership, Nottingham (The Meadows)** |
| The Meadows Ozone Energy Services is a company formed by local people in the Meadows and has aspirations to change a inner city area with multiple deprivation levels to become a exemplar to other similar inner city communities. The Meadows has a housing stock of approx 4000 houses with a mixture of housing types including over 1000 Victorian terraced houses that are hard to insulate. The project seeks to demonstrate that low carbon savings can help reduce fuel poverty. |
| **Kirklees Council, Huddersfield, Yorkshire (Kirklees)** |
| Greening the Gap will involve PV application to three main community centres and 30 domestic houses. This project presents a credible carbon reduction story in a deprived, ethnically diverse area, with a team that have been very successfully in communicating best practice widely. |
| **Haringey Council and the Muswell Hill Low Carbon Zone, North London (HC/MHSG)** |
| An integrated application involving a diverse range of interventions and partner organisations. Muswell Hill sustainability group provides strong community leadership with Haringey Council providing support and resources. The application includes PV installations on four schools to be used as a learning tool and to encourage behaviour change, a mobile sustainable learning facility, cycle parking and a community renewable energy company will gain funding to generate income for carbon reduction measures in the community. Much action is already taking place within the Low Carbon Zone. |
| **Berwick Core Ltd, Berwick upon Tweed (Berwick CoRE)** |
| In conjunction with the Berwick Housing Trust, the funding would be spent on a retro-fit renewable programme which will see the installation of photovoltaic panels installed in 50 houses. The revenues due to the electricity generated would feed into a community fund that would be reinvested for further environmental and social programmes. The remaining £50k would go into the Low Carbon Berwick Programme which will see the implementation of a local action plan including behavioural change initiatives for domestic householders and wider environmental initiatives through Berwick that would be aided via a volunteer work force. It is the ultimate aim of the Low Carbon Programme to establish a Berwick Transition Town. |
| **Sustainable Blacon, Chester (Blacon)** |
| Blacon is a suburb of North West Chester adjoining the English/Welsh border. Blacon will champion energy efficiency and refurbish two local houses, so people can see what they can do to cut their bills and have access to advice and practical support for its 16,000 residents. They will also be bringing together local people from across the community installing some of the latest technology in their homes and enable local people to help one another to cut bills and spread good practice through their social networks. |

## *1.2 Linking environmental change and community*

There is an implicit assumption that something – whether the behaviour of individuals or the structures of society - must change in order to address the environmental challenge posed by climate change. Therefore rather than adopt the language of behaviour change with its focus on the individual, the broader

perspective offered by the governance of environmental change is used throughout the thesis.

Theories on how to explain the governance of environmental change have been the focus of a number of disciplines including the agency oriented, or *individualist* perspectives offered by economics and social psychology, the structural or *systemic* perspective of sociology and science and technology studies, and the *practice* perspective of sociology in which the focus is on social practices rather than individual behaviours or the structures surrounding that individual (Spaargaren 2011).

Community has emerged within each approach to the governance of environmental change as a potentially useful context for change (e.g. Jackson 2005; Walker *et al.* 2007; Middlemiss 2011). While principally a sociological concept, community has been analysed and theorised from a range of perspectives including community development, political science, and the neo-Foucauldian framework of governmentality. Yet it remains under theorised in the existing literature on the governance of environmental change, and lacks empirical evidence to support the claims being made of it by academics and policymakers (see Section 2.1).

By drawing the literatures on the governance of environmental change and community together this thesis is of necessity interdisciplinary. At its core though are questions that focus on the concept of community: what is it, what can it do, and what is it for? These are not new questions, however the starting point for this thesis is that to date the focus in the literature on the governance of environmental change has been on what community can do, without first asking what it is, nor broadening the question to reflect on what, if anything, it is for. In addition, the impacts of the

political and policy contexts in which community has been used as a means through which to govern environmental change remain largely unknown.

What is evident from the description of the aims of the LCCC and the winning applicants is that their interpretation of community is geographically based. Yet as the literatures on the anthropology and sociology of community make clear (e.g. Suttles 1972; Cohen 1985, 2002; Anderson 1991; Frazer 1999; Bauman 2001; Amit 2002), community is a much broader and contested concept than the simple aggregation of individuals within an artificially imposed geographical boundary. As Lee and Newby note: 'apart from the observation that they are all living together in a particular place, there is no consideration of the inhabitants at all, nor of how – or indeed whether – they interact with one another' (Lee and Newby 1983, p. 57).

Lee and Newby draw attention to the idea of community as a form of social interaction, the role of which is little understood in the existing literature on the governance of environmental change (Hargreaves 2011). In order to understand its role the work of Erving Goffman is particularly useful. Goffman draws heavily on dramaturgical metaphors to suggest that social life is the performance of a 'front', with an associated backstage performance that is hidden from public view (Goffman 1959). His work is of relevance to this thesis for two key reasons. The first relates to the multiplicity of community (see Section 2.2). At any one time an individual may be considered a member of multiple communities, each with a set of appropriate behaviours and norms regarding conduct. The second is that in most social situations individuals are not expected to present a pro-environmental version of self (Moisander and Pesonen 2002). Engagement with a low carbon community, in whatever form it may take, will require an individual to conform to the norms of involvement in that particular situation. Yet their involvement represents a single

performance of self with behaviours that may not be matched by other versions that exist in social situations such as within the household or in the workplace. This suggests that individual's may perform a version of community in public as part of a *front*, but its ability to encourage positive environmental change in the *backstage* of the household remains unknown.

These are important insights to draw attention to at the beginning of this thesis. They set out the contested, partial and performative nature of community, and how the normative rhetoric of community such as in the Third Way and Big Society agendas is being imposed on geographically bound areas in which community as an actualised form of social relations may not exist. Of equal importance to this thesis is the way in which community boundaries have been set by others, in this case government (*cf.* Giddens 1998), as part of a new form of *governmentality* that seeks to govern the population at a distance (Foucault 1978, 1982; Rose 1996; Rose *et al.* 2006; Dean 2010)

When combined, insights drawn from the literatures on the anthropology and sociology of community, community development and political science, Erving Goffman's work on social interaction, and the neo-Foucauldian framework of governmentality as detailed in the work of Miller and Rose (1990; Rose and Miller 1992, 2008) and Dean (2010), suggest that community is partial, performed, and political. Within the wide ranging theoretical approaches to community such arguments are frequently made (e.g. Frazer 1999; Bauman 2000, 2001; Little 2002; Fremeaux 2005; see also Section 2.2); however they are lacking from much of the existing literature on the governance of environmental change. This is problematic and in urgent need of addressing in order to develop a greater understanding of the impacts of the partial, performed, and political aspects of community on its ability to

tackle climate change. Addressing this forms one of the key, distinctive contributions to knowledge of this thesis. By drawing on these literatures, this thesis provides a conceptually novel and, I believe, necessary framework through which to approach my research. It aims to contribute a range of alternate ways of analysing and understanding the role of community in tackling climate change, and begins by asking the over-arching research question of:

How, if at all, does community contribute to tackling climate change?

Three sub-questions further guide the research. They are, within the contexts of efforts to use community as a means of encouraging positive environmental change:

1. What does community mean?
2. What effects, if any, do these meanings have on efforts to govern environmental change?
3. What is the role of community in tackling climate change?

In providing answers to them this thesis makes a series of original contributions.

First, it makes an *empirical contribution* to the literature on sustainable consumption from which the Jackson quote that inspired this thesis originates. It does so by expanding the currently limited evidence base on the role of community in encouraging pro-environmental and social change. Its originality lies in the fact that it is the first empirical research I am aware of in this context that adopts a critical perspective on the very nature of that which it is researching: community.

The critical perspective is developed as part of the second contribution to knowledge made by this thesis, which is a *theoretical contribution* to the literature on

the role of community in the governance of environmental change. I achieve this by examining the LCCC through the lenses offered by Goffman and governmentality that recognise the partial, performative and political nature of community. In addition, it contributes to the ongoing theoretical debates surrounding the governance of environmental change in order to develop an understanding of how, if at all, community facilitates positive environmental change. The theoretical contribution is presented as a means by which to challenge the dominant theories of the governance of environmental change currently employed by policymakers that focus on the individual – most often conceptualised as a consumer – as the appropriate site of change.

The third is a *methodological* contribution. To date no case study has been conducted into the role of community in tackling climate change from the broader political and policy perspective adopted for this research. This, I believe, is a crucial dimension missing from the existing literature, as by not including it a potentially important context in shaping how, if at all, community can contribute to tackling climate change is excluded from consideration. By including it I have added extra explanatory depth to the answers I present, which is one of the strengths of this study. One of the distinctive aspects is that I have done so by including perspectives from policy officials, the expert network advising DECC, community practitioners and participants in the LCCC to ensure that the views of each stakeholder group involved is represented, with no group gaining a privileged voice (*cf.* Flyvbjerg 2001).

I cannot hope to provide 'unequivocal proof' (Jackson 2005, p. 133) of the ability of community to tackle climate change, nor even presume that such a task is achievable. Instead, my intention in conducting this research is to produce well

informed, detailed answers to questions of key academic and policy relevance. By doing so I hope to create new understandings of, and provoke debate about, the role of community in tackling climate change.

## *1.3 Thesis structure*

In Chapter 2 I provide the theoretical context underpinning the thesis. It begins with a review of the literature on the governance of environmental change. It outlines the agency oriented, or *individualist* perspectives offered by economics and social psychology, the structural or *systemic* perspective of sociology and science and technology studies, and the *practice* approach in which the focus is on practices rather than individual behaviours or the structures surrounding that individual. The chapter highlights how within each approach appeals to community as a potentially useful context through which to encourage widespread positive environmental change have been made; however they are hindered by a lack of empirical evidence to support such claims. The chapter goes on to argue that existing approaches to understanding the governance of environmental change share a theoretical and empirical blind spot. Firstly, the narrow way in which community is theorised; and secondly, a lack of empirical studies that explore the political and policy context and the effect it may have on community projects. The chapter argues that there is a pressing need for a more critical perspective on the role of community in tackling climate change, with the literature on governmentality and Goffman's interactionist concepts providing the conceptual tools required to undertake such a study. The review concludes by summarising the principal arguments, which in turn lead to the research questions posed by this thesis.

Chapter 3 provides the methodological basis upon which the research was undertaken, together with an account of the methods employed. It provides a

justification of the social constructivist approach to knowledge in which truth is not 'out there' waiting to be found, but rather is context-dependent, socially situated and with social consequences. In addition, drawing on the work of Bent Flyvbjerg (2001), it argues for the adoption of a *phronetic* approach to social science that also recognises the context-dependent nature of knowledge. The chapter moves on to argue that based on the philosophical stance adopted for this research the only appropriate methodology is the case study, before details of the specific data collection and analysis methods are then presented.

Chapters 4, 5 and 6 present a detailed analysis of the LCCC case study. In each chapter I present results and analysis relating to one of the three sub-questions this thesis asks.

In Chapter 4 I answer the question of what does community mean to different people involved in the LCCC. It argues that, within the LCCC, community was a multi-faceted concept subject to contested understandings regarding both what it is and what it could do. These ranged from the instrumental understanding of community as a delivery mechanism for a policy agenda based on energy generation and carbon accounting held by officials within DECC to the normative understanding of community held by practitioners and participants based on identification with their local neighbourhood or area.

Chapter 5 then considers what the effects of these different meanings are. Its key argument is that is that the principal effect of DECC's instrumental understanding of community was to require community practitioners to reproduce narrow, instrumental projects conforming to that image. Applied instrumentally, community did little to challenge what I term the *real* low carbon communities

challenge: altering social dynamics with the household and what constitutes patterns of normal behaviour beyond it.

Building on the arguments presented in Chapters 4 and 5, Chapter 6 moves on to answer the question of what is the role of community in tackling climate change. The chapter argues that within the LCCC the principal role of community was as a mechanism through which to deliver DECC's instrumental understanding of how to tackle climate change. The focus of the LCCC projects on increasing energy efficiency within carbon-conscious consumer-citizens households represented the successful translation of DECC's understanding of how to tackle climate change, but one which does little to address the problem it was notionally setting out to solve.

Chapter 7 concludes the thesis by presenting a summary of the key empirical and theoretical contributions it makes. Together they suggest that whatever potential community may have in tackling climate change it is unlikely to be realised through an instrumental framing based on individualist approaches to governing environmental change. Based on these conclusions I provide some suggestions and reflections for community practitioners to consider, before a series of policy recommendations and avenues for future research are presented as a means by which to further our understanding of how, if at all, community can contribute to tackling climate change.

# Chapter 2 The Governance of Environmental Change and Community

This chapter will provide the theoretical rationale underpinning the thesis by situating it within the literatures on the governance of environmental change and community. It begins by outlining three broad approaches to understanding the governance of environmental change. Firstly, *individualist* approaches that examine human behaviour based on theories from economics, psychology and social-psychology to explain the actions of the individual; secondly, *systemic* approaches that use theories from sociology and science and technology studies that focus on the role of institutions and social structures; and finally *practice theory*, a sociological theory that focuses on the relationship between agency and structure in which practices form the focal point of interest.

The chapter draws attention to the prominence given to community as a potential context for governing environmental change within each approach. However I argue that there is a lack of critical reflection on what is being referred to when discussing community. The chapter moves on to address this point, introducing the key theories and debates on community from literatures on the anthropology and sociology of community, community development and political science that, I argue, need to be incorporated into research on its role in tackling climate change.

I then introduce Erving Goffman's work on social interaction, and argue that an understanding of social dynamics and the performative nature of social life can provide valuable insights to further understanding of the ability of community to tackle climate change. Finally, I argue that existing research has failed to focus on the political and policy context in which community is being tasked with tackling climate change, and outline how the neo-Foucauldian framework of governmentality

provides a crucial, and currently missing, perspective through which to do so. The chapter concludes with a set of research questions drawn from the literature review that guide the rest of the thesis.

## *2.1 Theorising the governance of environmental change*

This thesis is attempting to explore how community contributes to tackling climate change. There is an implicit assumption that something – whether the behaviour of individuals or the structures of society - must change in order to address the environmental challenge posed by climate change. Theories on how to encourage and explain such change have been the focus of a number of disciplines including economics, social psychology, sociology and science and technology studies. In this section I outline the key features of these competing approaches and draw attention to the way in which each of them has a theoretical and empirical blind spot regarding the meaning and role of community in tackling climate change.

### 2.1.1 Individualist and Systemic Approaches

A number of authors have identified and categorised a range of distinct perspectives on role of agency and structure in the governance of environmental change (e.g. Spaargaren and Van Vliet 2000; Burgess *et al.* 2003; Hobson 2006; Seyfang and Paavola 2008; Seyfang 2009; Spaargaren 2011). While different authors use slightly different terminology, common to each perspective is the divide between agency oriented perspectives from economics and social psychology and systemic or structural perspectives from science and technology studies and sociology. Spaargaren (2011) categorises these perspectives as *individualist* and *systemic* approaches to environmental change (see Fig 2.1).

Within the individualist approach the focus is on 'the consumer as the principle lever of change' (Sanne 2002, p. 273), and pro-environmental behaviour

change is ‘construed as the outcome of a linear and ultimately rational process’ (Burgess et al. 2003, p. 271). Yet as Maniates (2002) critically observes, such an approach shifts responsibility away from government and places the focus on consumers as those responsible for creating environmental problems and therefore responsible for solving them.

| Individualist Paradigm (social psychology/economics) | Systemic Paradigm (sociology/science studies) |
|---|---|
| Individuals and their attitudes are key units of analysis and policy | Producers/states and their strategies are key units of analysis and policy |
| Behavioral change of individuals is decisive for environmental change | Technological innovation within the production sphere is decisive for change |
| Individual choices are the key intervention targets (micro level) | Socio-technical systems are the key intervention targets (macro-level) |
| End-users/consumers determine the fate of green products and ideas | Technologies and markets determine the fate of green products and ideas |
| Key policy instruments and approaches: social (soft) instruments (persuasion through information provision) | Key policy instruments and approaches: the use of direct regulation targeting providers (laws, market based instruments) |

**Figure 2.1 Individualist and systemic approaches to environmental change (Spaargaren 2011, p. 814)**

Yet the predominant policy response to governing environmental change remains focussed on individualist approaches in which the provision of information is considered a primary factor in achieving the shift towards more pro-environmentally friendly behaviour by consumers (Burgess *et al.* 2003; Southerton *et al.* 2004). Within the UK, government sponsored campaigns such as ‘Going for Green’ and ‘Are You Doing Your Bit?’ from the 1990s, and most recently the ‘Act on $CO_2$’ campaign of the mid-late 2000s adopted an information-deficit model to public environmental education in an attempt to change behaviours.[2]

[2] Within this paradigm it is worth noting that the last mass advertising campaign run in the UK to raise awareness of climate change – Act on $CO_2$ – was withdrawn following the election of the UK coalition government in May 2010.

By addressing a perceived information deficit in relation to the environmentally damaging effects of their consumption it is assumed that pro-environmental behaviour will follow. Information, whether acquired through formal education, targeted information campaigns developed by government, or less formal channels such as mass media, leads to increased environmental awareness and a shift in environmental values and attitudes. More information relating to more aspects of environmentally unfriendly behaviour will lead a virtuous circle of ever increasing environmental awareness resulting in individuals adopting ever more pro-environmental behaviours.

Several authors have produced extensive comparative reviews of models developed to understand these behavioural processes (e.g. Jackson 2005; Wilson and Dowlatabadi 2007; Darnton 2008). Of these models, the Theory of Planned Behaviour (TPB) (Ajzen 1991) has provided some evidence to support the assertion that situation specific cognition is a direct determinant of a specific behaviour (Bamberg 2003). However a problematic area for models of environmental action such as the TPB is the relatively weak correlation between attitudes, values and personal norms and indicators of pro-environmental behaviour. In response, ever more complex models with additional variables have been developed in an attempt to increase their predictive capacity. Such a strategy is not without issue however, as the addition of ever more variables results in a 'tension between parsimony and explanatory power' (Jackson 2005, p. 100).

Further evidence of the problem social-psychological models face in explaining individuals' behaviour is provided in the review of public environmental attitude surveys by Burgess *et al.* (2003). They observe that 'the remarkably rapid increase in public awareness of environmental issues and embracing of pro-

environmental attitudes is coupled with virtually no substantive changes in behaviour at all' (Burgess *et al.* 2003, p. 271). A finding they note is unfortunate.

The implications of these findings on understanding the links between attitudes, values, norms and actions are highly significant as they indicate that 'behaviours depend critically on the salience of specific beliefs and values in specific contexts' (Jackson 2005, p. 58). The key insight to take from this discussion of individualist approaches is therefore that behaviour is a context-dependent, socially negotiated process subject to external influences that may be beyond the control of the individual.

Within the systemic approach the focus shifts from individuals to institutional actors such as companies and government across a range of scales from the local to the national. Spaargaren argues that within the systemic approach individuals 'will have no choice but to behave sustainably at the moment when the proper technologies, infrastructures and products are put in place as the result of strict regulations' (Spaargaren 2011, p. 814).

Domestic recycling is an interesting example of the divide between individualist and systemic approaches, with individual attitudes losing relevance as a determinant of behaviour when structural barriers have been removed (Guagnano *et al.* 1995; Mannetti *et al.* 2004). However the systemic approach to change has been critiqued for ignoring the role of individuals. The focus on new technology and infrastructural change removes individuals from participating in and democratically contributing to processes of environmental change. In addition, it has proven difficult to realise the assumed environmental benefits of new technologies and infrastructures when they are designed without reference to their intended users and how they incorporate them into their daily routine (Spaargaren 2011).

Of crucial significance to this discussion is that community is seen within both the individualist and systemic approaches as a potentially useful context through which to achieve environmental change. For example within the individualist approach Jackson states:

> 'Negotiating change is best pursued at the level of groups and communities. Social support is particularly vital in breaking habits, and in devising new social norms.'
>
> (Jackson 2005, p. 4)

Therefore as a minimum, Jackson suggests efforts to achieve lasting pro-environmental behavioural change should include community-based social marketing, social learning and participatory problem-solving, with government playing a central role in supporting community-based social change (Jackson 2005).

Several Government policies have made explicit references to community in this context. 'Securing the Future' (HM Government 2005) set out an integrated approach to achieving sustainable development (and by association tackling climate change) based around four 'E's: engage, enable, encourage and exemplify, of which community action formed part of the strategy. 'A Framework for Pro-environmental Behaviours' (DEFRA 2008b) split the UK population into seven ideal types and provided matrices of their ability and potential to act against their willingness to do so with the aim to 'protect and improve the environment by increasing the contribution from individual and community action' (DEFRA 2008b, p. 13). 'The UK Low Carbon Transition Plan' (LCTP) (HM Government 2009) stated in its introduction:

> ‘Everyone has a role to play in tackling climate change, from reducing their own emissions to planning for adaptation. Building on our ‘Act on CO2’ information campaign, the Government is providing a range of support for individuals, communities and businesses, including a major programme of financial help for home insulation and energy efficiency.’
>
> (HM Government 2009, p. II)

Several references to the ‘Green villages, towns and cities’ challenge, the forerunner of the LCCC, were contained in the LCTP. It outlined details of the challenge in which around fifteen communities would be selected to participate as ‘test hubs’ ‘at the forefront of pioneering green initiatives’ (HM Government 2009, p. 93). Local residents, businesses, and the public sector were expected to play a leading role, with the hope that if successful ‘Government can use what we learn to help roll-out of a nationwide plan, potentially helping every city, town and village make the transition to a sustainable future’ (HM Government 2009, p. 94).

The key point to note is that each policy initiative was firmly grounded in individualist approaches to governing environmental change. In addition, policy references to community, while avoiding explicitly defining the term, refer to narrow interpretations based on geographical area and interest.

From a systemic approach, Walker *et al.* (2007) highlight the emergence since 2000 of a theme within energy policy discourse around the concept of ‘community’ renewable energy. They identify three factors to explain this. First, the perceived need to educate the public about renewable energy in order to engender more positive attitudes towards the general diffusion of renewable energy projects. Second, the need to stimulate the market for small-scale renewable technologies that were beyond existing subsidy mechanisms. And finally, as a means of social and economic renewal for communities suffering from agricultural decline and depopulation.

They argue that given the multiplicity of policy objectives from which community emerged it would be wrong to suggest that it was in response to the climate change agenda. Instead, it is a reflection of largely instrumental goals that have converged around the notion of community. As evidenced in the 2011 Microgeneration Strategy the instrumental use of community is still present in energy policy discourse:

> 'Community energy schemes can deliver on more than just energy-focused policy objectives. So it is important that DECC, with the support of communities, engage with other Government Departments to ensure that policy being developed on rural issues, planning and the Big Society more generally are designed with community energy opportunities in mind.'
>
> (DECC 2011b, p. 49)

Yet within both the individualist and systemic approach to governing environmental change there is limited empirical evidence to support the claims being made of community (Jackson 2005; Walker *et al.* 2007; Walker 2011). Two recent reviews (Middlemiss 2008; Walker 2011) highlight this point.

Middlemiss' (2008) review applied a methodological framework based on Pawson and Tilley's (1997) work on programme evaluation in which the concepts of contexts, mechanisms and outcomes are used to develop theories as to what works for whom and under what circumstances in order to encourage pro-environmental behavioural change. She identified a range of *contexts* at both the individual and community level which stimulate individual behavioural change. These included an individual having a broadly positive attitude toward and understanding of environmental issues (e.g. Georg 1999; Maiteny 2002); and the community group being cohesive with a strong sense of identity (e.g. Robbins and Rowe 2002).

*Mechanisms* identified include social support in which group members support each other in achieving a common goal (e.g. Georg 1999; Staats *et al.* 2004) and benefits recognition in which the group nature of the activity is perceived by group members to result in personal, financial or social gain for the group (e.g. Hobson 2001). *Outcomes* included those for the environment such as maintained behavioural change (e.g. Staats *et al.* 2004); for the community-based organisation in the form of innovative solutions that individuals working alone may not have been able to develop (e.g. Jackson and Michaelis 2003); and for the individual in the form of education on environmental issues (e.g. Stocker and Barnett 1998) and improved social connections within the community concerned (e.g. Church and Elster 2002).

Of the range of *outcomes* of community-based initiatives identified in the current literature, the fact that pro-environmental behavioural change has been maintained is clearly significant to achieving sustainable development, or in the context of this research, tackling climate change. However the *mechanisms* by which these initiatives have encouraged individual behavioural change are also significant as without them individuals will be less likely to alter their behaviour. These mechanisms are a function of the *context* in which they occur. However at the individual level contextual factors such as having a broadly positive attitude to the environment (the context) do not necessarily lead to pro-environmental behaviour change (the outcome) – the so-called ‘attitude-behaviour’ gap (Burgess *et al.*, 2003). This is clearly a problem for community-based behavioural change initiatives as it is not clear which of the contextual factors are the most significant in their success or failure – or indeed if there are other as yet undiscovered or neglected contexts that are significant. It is also possible that all of the contextual factors may be present yet

no behavioural change is seen as contextual factors work on multiple levels to influence individuals (Kollmuss and Agyeman 2002; Barr 2003)

Middlemiss' review identified a range of outcomes, mechanisms and contexts within community-based sustainable development initiatives; however there is little distinction in the literature between top-down community-based initiatives such as those supported by the UK Government in which community is seen as the instrument of change, and bottom-up or grassroots initiatives such as local organic food co-operatives where community acts as the agent of change. This is in need of addressing as it seems intuitively correct to suggest that the manner in which community-based initiatives frame the issue and the influence of power within the community will be fundamental to the functioning of the initiative.

A tendency in the literature to focus on contextual factors and outcomes of pro-environmental behavioural change rather than the mechanisms by which outcomes are achieved was also identified by Middlemiss. For example the application of rational choice theory limits the description of causal mechanisms leading to behavioural change to those operating at an individual level; however the view of the individual as the appropriate scale of intervention neglects the role of their interactions with the wider structures of society (e.g. Giddens 1991; Spaargaren and Van Vliet 2000; Warde 2005; Shove 2003, 2012).

In addition, community remains narrowly defined and inadequately conceptualised in the current literature, a point Walker implicitly acknowledges in his review on the role of community in carbon governance. He suggests 'the need to be open to a rather more problematic reality of community-based action than might be evident in policy and campaigning rhetoric' (Walker 2011, p. 778), and concludes that the capacity for community to act as a carbon governance actor needs:

> ‘to be understood in relation to those of other governance actors and the various enabling resources they have control over. Furthermore as the research base providing evidence that community-based initiatives do work in the ways they are expected to is limited, a critical perspective needs to be maintained which recognizes that communities are not always inclusive, harmonious and collaborative, or indeed may not exist in any cohesive form ready to take responsibility for climate change action.’
>
> (Walker 2011, p. 781)

Walker’s quote provides a cautionary note that summarises the key arguments made in this section. Context has been identified as a key element in enabling or inhibiting positive environmental change, with community emerging from both academic and policy literatures as a potentially useful means through which to do so. However the limited empirical evidence to support such a claim, together with the narrow way in which community is understood, must be addressed in order to gain a greater understanding of its role in tackling climate change.

As previously noted, implicit within the goal of ‘tackling climate change’ is an understanding that *something* must change. This section has shown how the idea of community has come to prominence within the dominant individualist and systemic approaches as a means by which to facilitate such change. However this literature review would not be complete without also addressing an alternative theory of social change that has been suggested avoids the ‘pitfalls’ (Spaargaren 2011, p. 813) of these approaches to theorising the governance of environmental change: practice theory.

### 2.1.2 Practice theory

Practice theory differs from individualist or systemic approaches to environmental change in that its focus is on practices rather than individual

behaviours or the structures surrounding that individual. Reckwitz defines a practice as:

> 'a routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge. A practice... forms so to speak a 'block' whose existence necessarily depends on the existence and specific interconnectedness of these elements.'
>
> (Reckwitz 2002, p. 249–53)

Outlining the centrality of practices in understanding social life, Giddens (1984, p. 2) states: 'the basic domain of study of the social sciences…is neither the experience of the individual actor, nor the existence of any form of societal totality, but social practices ordered across space and time'.

Practices can be seen as a set of interconnected elements, with 'things' as central elements in the constitution of practices. As Reckwitz (2002, p. 253) argues, 'Carrying out a practice very often means using particular things in a certain way. It might sound trivial to stress that in order to play football we need a ball and goals as indispensable 'resources'... but it is not'. Practices therefore exist in the *performance* of a co-ordinated series of events requiring the use of particular things in a particular way according to a particular understanding of their use, examples of which include cooking practices, farming practices or business practices.

While 'there is no unified practice approach' (Schatzki, 2001 p. 2) a common focal point for practice theorists is the interaction between individuals in possession of knowledge, skills and attitudes with social structures as technology, institutions

and infrastructures. Spaargaren and Van Vliet's social practices model (2000) provides a useful framework for visualising these interactions (shown in Fig 2.2).

**Figure 2.2 Spaargaren and Van Vliet's Social Practices Model**
**(Spaargaren and Van Vliet 2000, p. 53)**

The model, derived from Anthony Giddens structuration theory (Giddens 1984), shows how social practices are influenced by the structures of society in the form of systems of provision as well as the actions of the individual and their lifestyle choices. It illustrates some of the constraints on an individual's ability to adopt pro-environmental behaviours regardless of their knowledge, attitudes or value orientation towards environmental issues.

While there may be differences in the theoretical perspective taken or definitional boundaries of what constitutes 'practice', central to most accounts is the idea that practices are the location where understanding is structured and intelligibility articulated, and that by placing social practices at the centre of social life they recognise understanding/intelligibility as the basic medium ordering social existence (Schatzki 1996). Therefore from a practice theory perspective the practice

is the focal point for analysis as its view of social organisation is based upon neither individualist nor holist interpretations (Warde 2005).

Recognising the social nature of practices as performance removes the individual from analytical primacy and at a stroke also removes notions of individual attitudes, values and beliefs as drivers of behaviour and potential barriers to altering them. As Warde (2005, p. 138) notes, ‘It is the fact of engagement in the practice, rather than any personal decision about a course of conduct, that explains the nature and process of consumption’. In other words, by participating in an activity you are committed to engaging in the practice (or ‘doing’) of that particular activity and thereby consuming the elements that go towards constituting the practice itself.

Practice theory offers an analytical lens through which to analyse what Warde (2005, p. 140) identifies as the key sociological questions: ‘why do people do what they do?’ and ‘how do they do those things in the way that they do?’ They are questions that he suggests implicitly acknowledge the social construction of practices, the role of collective learning, and the importance of the exercise of power in shaping and defining justifiable conduct (Warde 2005).

Several authors have drawn attention to the methodological challenges in applying practice theory empirically (Warde 2005; Spaargaren 2006; Halkier and Jensen 2011; Halkier *et al.* 2011). Despite these challenges, there is a growing number of both theoretical and empirical studies examining the governance of environmental change through a practice theory lens (e.g. Shove 2003; Shove and Pantzar 2005; Spaargaren 2006, 2011; Halkier and Jensen 2011; Hargreaves 2011; Shove *et al.* 2012). Within this body of work, the contributions made by Middlemiss (2009, 2011) represent the sole contribution to the literature on the governance of environmental change that incorporates the role of community in shaping practices.

Middlemiss' work focuses on how projects run by place or interest based community organisations stimulate sustainable lifestyle change among participants. Such projects are, she states: 'at home in practice theory, as they implicitly recognize the connections between practices, people, institutions and place' (Middlemiss 2011, p. 1157). However the challenges highlighted by Walker (2011) and outlined in Section 2.1 relating to the narrow way in which community is conceptualised in the literatures on the governance of environmental change remain. In particular, and returning to Warde, the role of community in shaping 'why do people do what they do?' and 'how do they do those things in the way that they do?' (Warde 2005, p. 140) remains an open question within practice theory.

### 2.1.3 A pragmatic approach to theorising the governance of environmental change

A recent exchange between Shove (2010, 2011) and Whitmarsh *et al.* (2011a) drew attention to the contrasting theoretical approaches to understanding the governance of environmental change in response to climate change.

In what she acknowledges to be a 'deliberately provocative' position Shove (2010, p. 1273) states that policy makers are highly selective of the models of change on which they draw. She argues that they rely on economic and (social) psychological models of change as there are significant political advantages to be had in maintaining an emphasis on individual behavioural choices as an appropriate response to climate change. Referring to the dominance of 'ABC' theories of social change in which 'A' stands for attitude, 'B' for behaviour and 'C' for choice, Shove stated that:

> 'the ABC is a political and not just a theoretical position in that it obscures the extent to which governments sustain unsustainable economic institutions

> and ways of life, and the extent to which they have a hand in structuring options and possibilities.'
>
> (Shove 2010, p. 1274).

As a result, she argues, theoretical approaches such as practice or transition theories that challenge the primacy of the ABC in policy responses to climate change are likely to fall on deaf ears.

In response, Whitmarsh *et al.* critique Shove for her 'simplistic portrayals of psychological models of behaviour' and for proposing structural transformation as the only form of solution to climate change. They argue that 'using multiple perspectives and approaches can offer a complementary, and potentially more complete, view of the object of study' (Whitmarsh *et al.* 2011a, p. 259).

Ultimately, both sides seem to agree with each other on the need for a range of theoretical and disciplinary approaches to understanding behaviour; whether as a means of 'embedding these into effective modes of policy making' (Whitmarsh *et al.* 2011a, p. 260) or generating 'a much greater set of policy problems, not to 'solve' the limited set that currently attract attention' (Shove 2011, p. 264). The greater question posed by Whitmarsh *et al.* and implied by Shove remains unanswered, however, of what political change may be required for this to occur, and how might such change come about? Wilson and Chatterton suggest that this process may begin to take shape through the pragmatic application of multiple models for understanding the governance of environmental change. From a policy standpoint they argue:

> 'There remains an urgent need to use social science to improve the design of behaviour change interventions, objectives and strategies. Ensuring wide participation in this endeavour requires a framework for selecting which models work best in which contexts, underpinned by a recognition of the validity and applicability of 'multiple models'.'
>
> (Wilson and Chatterton 2011, p. 2785)

They propose a framework based on four key criteria related to the actors, scopes, durabilities and domains of behaviour relevant to a policy's objectives. Citing the example of tea drinking, they highlight how behaviour is understood and problematised differently depending on whether being viewed through an individualist or practice theory lens, providing policymakers tasked with reducing the associated energy usage with very different insights. While acknowledging the dominance of social-psychological models of change in current policymaking, they argue that:

> 'Introducing new theories and concepts as practical, *additional* ways of thinking through policy development is a direct and effective way of broadening awareness of the substantive yet valuable differences between contrasting theories.'
>
> (Wilson and Chatterton 2011, p. 2786 emphasis in original)

It is, they argue, necessary to introduce new theories alongside currently accepted models as a means by which to challenge the dominant theories of the governance of environmental change currently employed by policymakers. The approach adopted for this thesis is therefore also a pragmatic one. My principal interest is in understanding how, if at all, community can tackle climate change. Implicit within the idea of tackling climate change is an assumption that *something* must change – whether individual behaviours, infrastructure or practices. As this section has shown, how community achieves such change is little understood despite its prominence in academic and policy discourse. Using multiple-models therefore offers the opportunity to contribute policy relevant insights from a range of

theoretical perspectives while also contributing to academic debates relating to the governance of environmental change.

Irrespective of whether viewed through individualist, systemic or practice theory approaches, this section has highlighted that the role of community in the governance of environmental change remains under-theorised, relying principally on conceptualisations based on geographical area and interest. Of greater significance, given the recent rise of community in academic and policy debates is the lack of empirical studies that critically reflect on the nature of what is being referred to by 'community'. Little or no account of the important debates regarding the nature of community that are found in the anthropology, sociology, political science and community development literatures have found their way into those on the governance of environmental change. In the following section the literature review moves on to address this point by outlining the key theories and debates on community relevant to this research.

## *2.2 Community*

One of the key characteristics of the concept of community is, as Williams notes in his *Keywords*, that it can be:

> 'the warmly persuasive word to describe an existing set of relationships, or the warmly persuasive word to describe an alternative set of relationships. [And] unlike all other terms of social organisation (state, nation, society, etc.) it seems never to be used unfavourably, and never to be given any positive opposing or distinguishing terms.'
>
> (Williams 1976, p. 76)

It is the warmly persuasive use of the term that pervades much of the literature on environmental change. Several authors have raised questions regarding the nature of community and its role in the governance of environmental change (e.g.

Dalby and Mackenzie 1997; Bourke and Meppem 2000; Panelli and Welch 2005; Walker *et al.* 2007; Walker 2011). However the normative nature of community and its unquestioned existence as a source of good for the environment remains commonplace in the literature. For example:

> ‘Without the hearts and minds of local communities, governments find it hard to get their communities to produce and consume energy sustainably. To achieve a sustainable energy future, local authorities and communities must coordinate their efforts to deliver behavioural change.’
>
> (Allen *et al.* 2012, p. 266)

Yet if community is to offer a context for encouraging change of the type envisioned by a number of authors and policymakers (see Section 2.1) a more detailed understanding of what it is and how, if at all, it might go about achieving that change is called for. The literatures on the anthropology and sociology of community provide the starting point for developing that understanding.

Williams (1985, p. 75-76) describes five broad meanings that have been associated with community since it first appeared in the English language during the fourteenth century:

1. The commons or common people, as distinguished from those of rank (fourteenth to seventeenth century);
2. A state or organised society (fourteenth century onwards);
3. The people of a district (eighteenth century onwards);
4. The quality of holding something in common, as in community of interests, community of goods (sixteenth century onwards);
5. A sense of common identity and characteristics (sixteenth century onwards).

These meanings of community can be categorised into those that indicate actual social groups (1-3) and those that refer to a relationship amongst people (4&5). Community can be seen as a *value* or ideal that brings together elements such as solidarity, commitment and trust and also as a *descriptive category* or set of variables, or, as is frequently the case, an intertwined, difficult to separate mix of the two (Frazer 1999). The broad definitions of community as provided by Willmott (1986) and Lee and Newby (1983) highlight this. Community can be a:

- Community of locality or shared geographical location – although not strictly a sociological concept as 'apart from the observation that they are all living together in a particular place, there is no consideration of the inhabitants at all, nor of how – or indeed whether – they interact with one another' (Lee and Newby 1983, p57)
- Communion or interest community – where community is seen to involve a shared sense of identity such as place, ethnic origin, religion, or which football club you support.
- Local social system – individuals being linked together via their various social networks such as their family, friends and workplace.

The difference between the idea of 'the community' as an actual group, and 'community' as a signifier of a relationship amongst people forms the basis of much of the ambiguity in the literature on how to define community. The literatures on the anthropology and sociology of community are full of comments such as:

> ‘The concept of community has been the concern of sociologists for more than 200 years, yet a satisfactory definition of it in sociological terms appears as remote as ever.’
>
> (Bell and Newby 1972, p. 21)

And:

> ‘the concept of community has been one of the most compelling and attractive themes in modern social science, and at the same time one of the most elusive to define.’
>
> (Cohen 1985, p. 7)

The numerous attempts to provide a definitive taxonomy of community, such as the much cited work of Hillery (1955) in which he identified 94 different uses of the word, have led some authors to question the validity of such an approach, as well as the analytical use of the concept altogether (Amit 2002). However the ongoing interest in community suggests that whilst there may be difficulty in defining exactly what it is this has not been an insurmountable academic barrier to prevent numerous authors from attempting to do so. Anthropologists and sociologists from Tönnies, Durkheim and Weber at the turn of the twentieth century through to Cohen, Anderson and Gupta have used the concept of community in an attempt to explore the dialectic between social transformation and social cohesion (Amit 2002).

Studies that saw communities as being constrained by ethnic or cultural boundaries that defined an individual’s attachment to locality (e.g. Cohen 1985) have been challenged by a much broader interpretation of community. Instead of being defined as an actualised social form, community has instead been reinterpreted as an *idea* or quality of sociality. Anderson (1991) for example, basing his argument on the spread of nationalism, suggested that community as an imagined entity should not be interpreted as invented or spurious as any community that exists beyond the boundaries of face-to-face interaction must incorporate some element of imagined

commonality. This in turn has been associated with a translation of community involving a sense of collective identity rather than direct social interaction, or a move from defining community based on social relations to a shared sense of social imagination (Amit 2002). Thus communities can be seen as both a social construct in that they are the product of the active involvement of individuals and groups in their construction (Suttles 1972); and also a symbolic construct as they revolve around a concern with meaning and identity (Cohen 1985). The characteristics of the commitments that bind people in their differing degrees to a specific community can therefore be interpreted as being both socially and symbolically constructed.

Cohen has since broadened his definitional boundaries for what constitutes community. While not disowning his views on the symbolic nature of community, he states:

> 'There is no generally acknowledged or accepted theory of community, but there never was….people are associated with each other now only for limited purposes or in limited respects...community has become a way of designating that something is shared among a group of people at a time when we no longer assume that anything is necessarily shared …community now seems to have become a normative rather than a descriptive term, and perhaps that is appropriate to contemporary urban Western societies. Or perhaps communities are just as prevalent now as we supposed them to be in previous times but we are failing to see them because they take different forms or are more covert.'
>
> (Cohen 2002, p. 168-169)

Amit describes the emotive impact of community and the potential impact it has on individual's lives:

> 'The emotive impact of community, the capacity for empathy and affinity, arise not just out of an imagined community, but in the dynamic interaction between that concept and the actual and limited social relations and practices

> through which it is realised. People care because they associate the idea of community with people they know, with whom they have shared experiences, activities, places and/or histories….the essential contingency of community, its participants' sense that it is fragile, changing, partial and only one of a number of competing attachments or alternative possibilities for affiliation means that it can never be all-enveloping or entirely blinkering.'
>
> (Amit 2002, p. 18)

Bauman (2001) meanwhile suggests that community is nothing more than an idea created by individuals seeking safety in an insecure world, so that when we speak of community we are referring to something that is lost and for which we mourn. To Bauman, community evokes 'everything we miss and what we lack to be secure, confident and trusting', and goes on to suggests that 'community' stands for the kind of world which is not available to us – but which we would dearly wish to inhabit and which we hope to repossess. It is a 'paradise lost' or a 'paradise still hoped to be found' (Bauman 2001, p. 3).

Bauman goes on to describe how we are living in 'liquid times' (Bauman 2007), a new period of global development in which five 'departures' are simultaneously at work: institutions and social forms are decomposing faster than the time it takes to cast them, power and politics are divorcing as power is held by global business interests which political organizations are unable to regulate, social safety nets are dissolving at the same time as monopolies are being deregulated, long-term planning and thinking about the shape of communities and social patterns has ceded to quick fixes and quick profits, and the economic and political risks generated by global power are shifting the burden of volatile markets onto the shoulders of individuals. Bauman argues that it is this change in social relations that makes our appeals to community merely representative of a desire to reclaim the paradise that we as a society feel we have lost as a result of our ever more isolated existence.

The interpretations of community in the modern context offered by Cohen, Amit and Bauman suggest that it is about something (anything?) being shared amongst a group of individuals – even the *idea* of community, as opposed to Tönnies (1957) description of community as *Gemeinschaft* that saw it as an objective identifier based on territoriality and tradition within clearly defined geographical boundaries. Frazer's definition of community provides a clear summary of these arguments. Community is, she states:

> 'a concept with open frontiers and vague contours, which seems to extend across a very heterogeneous class of things, which conveys a wealth of meaning—it appeals to people's emotions, it is shot through with value judgements, it conjures up associations and images from a wide, wide range of discourses and contexts. It excludes a good deal, and what is excluded comes back to haunt those who deploy the concept.'
>
> (Frazer 1999, p. 60)

Adopting a similar tone, Little suggests that communities in the modern context are:

> 'partial, collective associations that represent the interests or beliefs of their members…the views of any community are contingent and will reflect circumstances and allocations of power and influence within the community at any one time.'
>
> (Little 2002, p. 375)

Frazer's and Little's conceptualisations address many negative aspects of community that normative descriptions neglect to acknowledge such as the exclusion of outsiders, excessive claims on group members, and potential restrictions on individual freedoms and downward levelling norms (Portes and Landolt 2000; Jarvie 2003). Rather than having fixed, set identities, 'communities can be imagined and enacted as mobile collectivities, as spaces of indeterminacy, of becoming' (Rose 1999, p. 195). Communities are multiple in number and constructed across a range of

levels of social life, requiring that they co-exist with one another. This view of community is grounded in the idea of association with similar minded individuals, yet relies upon differences from other groups. It recognises that within society value pluralism exists, leading in some cases to irreconcilable differences between communities, and that at any given time individuals are members of a number of different communities within which they may develop cross-cutting (and in some cases conflicting) identities.

Value pluralism within society requires recognition that multiple instances of community must exist. This view of community reflects a more accurate picture of twenty-first century social reality than that offered by appeals to *Gemeinschaft* and within it the suggestion that a homogeneous community exists or can be recreated through policy initiatives. Viewing community as a value also suggests the active engagement of its members as they form part of their identity through membership within it, whereas the homogeneous community suggests a more passive engagement with, for example, a geographic locality that takes little or no account of how, or even if, people within it interact with each other (Lee and Newby 1983).

### 2.2.1 The politics of community

As Bauman has argued, appeals to an idealised, homogeneous view of community as a 'paradise lost' can be interpreted as a response to the growing sense of isolation and uncertainty felt by individuals living in liquid times (Bauman 2001, 2007). Indeed the claim that such communities existed at all has been critiqued as owing more to academic theoretical bias and poorly interpreted empirical research than the actual experiences and reflections of those who lived in such 'lost' communities (Fremeaux 2005). Nonetheless this has not prevented ongoing appeals being made to community as a normative concept capable of delivering the sort of

social change that our supposedly atomised existence would ordinarily preclude. This was particularly true of the New Labour period of government in the United Kingdom (Fremeaux 2005), during which the LCCC was introduced.

New Labour's 'Third Way' was heavily influenced by communitarian thinkers such as Etzioni who saw community as 'the main way that individuals and groups in a good society encourage one another to adhere to behaviour that reflects shared values and to avoid behaviour that offends or violates them' (Etzioni 1997, p. 124). The Third Way policy agenda saw community as:

> 'fundamental to the new politics, but not just as an abstract slogan (. . .) Community doesn't simply imply trying to recapture lost forms of social solidarity; it refers to practical means of furthering the social and material refurbishment of neighbourhoods, towns and larger local areas.'
>
> (Giddens 1998, p. 79)

In Third Way thinking community was seen as a locality *and* a value-laden entity, indicating the instrumental function of community on policy implementation whilst simultaneously invoking the spirit of *Gemeinschaft*. The politics of the Third Way thus saw community as both the problem in that it had been lost, and the solution in that social and material benefit would accrue to those areas able to recapture it (Little 2002; Fremeaux 2005). For Third Way policy makers Anthony Giddens both asked the question of 'who decides where 'the community' ends and others begin?' and answered it: 'government must adjudicate on these and other difficult questions' (1998, p. 85). Community was at once reduced to an administrative area; one in which policy must try to recapture lost forms of social solidarity based on the assumption that such solidarity existed in the first place.

Within the Third Way this 'social dynamics of place' (Amin 2005, p. 616) approach to social policy resulted in a shift from centralised top-down universal

policies towards a more localised approach where local government, community participation and stakeholder involvement in individual projects were seen as key. In this context, the local community was seen as the responsible and empowered local community in which members would look after each other through participation in public life and active involvement in voluntary organisations (Giddens 1998; Little 2002; Amin 2005). There was an assumption within such initiatives of the pre-existence of communities as local entities sharing a set of latent community values that policy interventions could revive, and in some cases, define (Fremeaux 2005). Yet as Amin observes:

> 'It seems odd that at a time of increasing connections and flows between places linked to diverse geographies of globalization which routinely affect all places albeit in different ways, we should think of some places as somehow spatially enclosed.'
>
> (Amin 2005, p. 619)

More problematically, the assumption of a homogeneous community's existence - whether within an arbitrary administrative boundary or not - is unlikely to be correct. Indeed appeals to community exclude as many people as they include as by the very nature of defining boundaries there is an assumption of the existence of some way of distinguishing – and thereby excluding - members of one community from another. As those who draw the boundaries are often groups with power and vested interests who may seek to deliberately exclude outsiders the implementation of community as the solution to society's ills is not without problems (Frazer 1999; Bauman 2001; Little 2002).

Cooper presents a strong critique of the Third Way's conceptualisation of community as a bounded, homogeneous entity when he states:

> 'So often the way this [community] has been used in mainstream policy discourse (and particularly under New Labour) has been to emphasise sameness, consent and the absence of conflict. Such usage, however, presents a misleading representation of social relations...yet despite this, the powerful continue to espouse an understanding of community as unity in the expectation that this will activate local people to engage responsibly, in civil society, and find solutions wrought by neo-liberal economic organising and social policy. By activating communities in this way, wellbeing, safety and cohesion will, claim the powerful, be restored. Meanwhile, social harms generated by their policies, practices and activities remain concealed, and the status quo (unequal power relations) remains intact.'
>
> (Cooper 2008, p. 235-236)

The Third Way's invocation of community therefore ran the risk of creating power struggles over who was able to ensure proper representation while also limiting the expression of a range of diverse voices within the community as potentially unrepresentative elites gained a privileged voice (Little 2002; Fremeaux 2005). The presumption of consensus, harmony and unity in fact serves to close off avenues for debate and ignores the diversity of modern societies. Rather than reinvigorating society, it ignores social divisions and inequalities of power (Mouffe 1993). As a result, appeals to community mean very little without further clarification of what we mean by community (Little 2002).

New Labour was not alone in its appropriation of community. Following the May 2010 general election the newly elected coalition government introduced its 'Big Society' policy agenda in which community also took a central role as a means by which to deliver social policy (Alcock 2012). The Big Society was described as being 'about helping people to come together to improve their own lives. It's about putting more power in people's hands – a massive transfer of power from Whitehall

to local communities.' (Cabinet Office n.d.). It focused on three key areas: community empowerment through which local councils and neighbourhoods were to be given more power to take decisions and shape their area; the opening up of public services to allow third and private sectors organisations to deliver services previously provided by Government; and encouraging and enabling people to play a more active part in society (Cabinet Office n.d.). While still a relatively new policy agenda, the Big Society has already been subjected to a series of similar critiques similar to that of its Third Way predecessor in relation to its narrow, instrumental use of community (e.g. Coote 2010; Kisby 2010; Lawless 2011; Pattie and Johnston 2011; Alcock 2012). The key point behind the critique of the appropriation of community within the social policy framework of New Labour and the current coalition government is that similar appeals to community have been made in environmental and climate change related policy (e.g. HM Government 2005; DEFRA 2008b; DECC 2009, 2012; see also Section 2.1) and as such are open to a similar critique.

In summary, this section has highlighted that community is a political as well as sociological concept with sufficiently malleable contours to enable it to be appropriated towards the achievement of policy goals irrespective of the political ideology guiding government. In short, community is a far more complex concept than current conceptualisations within the literature on the governance of environmental change articulate. In particular, this section has drawn attention to the partial nature of community in which value pluralism results in individuals potentially being members of multiple communities at any time, with competing and potentially conflicting identities.

Given the importance of context in encouraging or inhibiting change as outlined in Section 2.1, the influence of different community contexts and their

impact on efforts to govern environmental change is in urgent need of further research. In addition, this section has shown how community has been appropriated toward the achievement of policy goals as part of what Rose (1996) describes as the re-figuring of the territory of government. The aim of this refiguring is to use community as a means through which to govern the population at a distance. Yet as O'Malley *et al.* observe, 'the messy actualities of social relations' (O'Malley *et al.* 1997, p. 509) often result in efforts to do so going astray when they meet their target of application. In the following section I outline how the work of Erving Goffman provides valuable insights in order to understand how and why this may occur within efforts to govern environmental change through community.

### *2.3 Understanding community and the governance of environmental change as part of the 'interaction order'*

Goffman draws heavily on dramaturgical metaphors to suggest that social life involves the performance of a 'front', with an associated backstage performance that is hidden from public view (Goffman 1959). By seeking to understand the 'interaction order' (Goffman 1983) his work highlights how individuals are constantly evaluating their surroundings in order to answer the question: 'what is it that's going on here?' (Goffman 1974, p. 8).

How an individual interprets what is going on represents the frame they have identified for the situation. Frames are 'schemata of interpretation' that enable individuals 'to locate, perceive, identify and label' events within their life space and the world at large (Goffman 1974, p. 21). They provide a means by which events or occurrences can be rendered meaningful to individuals, and therefore help to guide action. Yet as Goffman makes clear, any activity may have multiple meanings. For example encountering a group of football fans wearing an opposing club's shirt may be interpreted as an opportunity to engage in fraternal banter based on a shared

identity as football fans, or alternatively represent a threat to your personal safety based on longstanding enmity between clubs.

It is apparent that correctly answering the question of 'what is it that's going on here?' (Goffman 1974, p. 8) is a necessary component of the successful negotiation of everyday life. And as Goffman notes, 'what is proper in one situation may certainly not be proper in another' (Goffman 1963, p. 12). Individuals are therefore involved in a constant process of impression management: presenting or performing versions of themselves that adapt and change to the specific situation or frame they encounter in order to ensure they meet the 'social values or norms concerning involvement' (Goffman 1963, p. 193). Through such processes they either reveal or conceal certain aspects of themselves in order to meet the requirements of the situation.

The crucial insight being that the impression an individual wishes to present will vary according to the situation they find themselves in. Individuals are therefore seen by Goffman as 'changeable formulae' (1974, p. 573), altering their presentation of self in everyday life as required. By observing these performances in different situations it may be possible to understand how, and with what effects, they vary across particular social contexts. Context, as highlighted in Section 2.1, has become increasingly recognised as a key factor in promoting or inhibiting positive environmental change. Therefore the closely related concepts of frames and impression management are relevant to this thesis for two key reasons.

The first relates to the multiplicity of community. At any one time an individual may be considered a member of multiple communities, each with their own frame and set of appropriate behaviours. Engagement with a low carbon community, in whatever form it may take, will require an individual to conform to

the social norms of involvement in that particular situation. Yet their involvement represents a single performance of self with behaviours that may not be matched by other versions that exist in social situations such as within the household or in the workplace. In other words, an individual's presentation of self as part of a low carbon community may represent little more than a performance of environmental concern (broadly conceived) conforming to the expectations of that situation, but one which runs counter to their presentation of self in other social contexts such as the workplace.

The second lies in the fact that in most social situations pro-environmental concerns do not routinely form part of the frame, nor are individuals expected to present a pro-environmental version of self (Hargreaves 2011). Where such a situation has been shown to exist, for example in Horton's study of the performance of identity among environmental activists, it represents the 'ongoing, repeated and routinised enactment of the green cultural codes promoted by the discourse of contemporary environmentalism, which brings forth a distinctive way of life' (Horton 2003, p. 64; see also Hatton 2008). Yet this example is an exception to the norm. Moisander and Pesonen (2002), for example, have shown that presenting an overtly pro-environmental version of self in everyday life runs counter to expected social norms. This is despite high levels of public awareness of climate change among the public (Corbett and Durfee 2004; Lorenzoni and Pidgeon 2006; Whitmarsh *et al.* 2011b); together with a recognition of the need to take action to mitigate its effects (Lorenzoni and Hulme 2009). Climate change in particular and the environment in general become the elephant in the room, ignored as part of a collective act of silence or denial (Zerubavel 2006; Norgaard 2006, 2011), as to do otherwise is likely to be a source of stigma (Goffman 1963) and hence best avoided.

Taken together, these points suggest that while individuals may recognise and perform community in public as part of a *front*, their recognition of it as an appropriate frame through which to articulate their environmental awareness or concern is less evident, as is the ability of community to alter *backstage* behaviours such as those within the household.

Lawn watering and domestic recycling are cited as examples where community based social marketing has been successful in shifting social norms (McKenzie-Mohr 2002). However in both cases they can be viewed as performances of civic duty towards water conservation and resource conservation respectively conducted in the visible realm beyond the front door. On this stage, the appropriate performance of community duty is clearly visible. The as yet unanswered question is how can community overcome social dynamics and patterns of normal behaviour behind the front door in order to alter behaviour towards more pro-environmentally friendly options?

Hargreaves (2011) suggests that insights from Goffman's work on social interaction present both a challenge and an opportunity for understanding the governance of environmental change. The challenge, he argues, is to examine how the dynamics of social interactions serve to promote or inhibit pro-environmental acts in different situations, while the opportunity is that social dynamics might be used as powerful mechanisms through which pro-environmental change might be brought about. Drawing on an ethnographic case study of a workplace pro-environmental behaviour change initiative he highlights how specific social contexts served to either help or hinder the spread of pro-environmental action. In particular he notes how the initiative resulted in a change in the shared understanding of how to behave in the workplace. This required an amended 'presentation of self' (Goffman

1959) from employees, with the resulting change in social interaction serving as a powerful mechanism through which the pro-environmental message underpinning the initiative was spread and reinforced. Importantly, this change came about without necessarily changing individual's attitudes, values or beliefs regarding the merits or otherwise of adopting pro-environmental behaviours. Instead, the change was attributed to changing the frame through which employees viewed the workplace to one in which in most of their day-to-day interactions 'the environment could no longer be ignored' (Hargreaves 2011, p. 13).

Hargreaves concludes his paper by suggesting that research focussing on social interaction may be able to provide a means of crossing the divide between the opposing approaches to the governance of environmental change outlined in Section 2.1. For Hargreaves, social interaction:

> 'offers a means of seeing how individuals actively influence their surrounding contexts and situations and the performance of practices that occur within them. At the same time, a focus on social interaction also illustrates very clearly how broader social structures – such as frames and the "norms concerning involvement" they contain – actively shape individuals' practical performances from one moment to the next. In short, focussing on interaction processes helps to blur the boundary between individuals and their surroundings, forcing one to concentrate on "social individuals" that are both the product and producers of their socio-material context.'
>
> (Hargreaves 2011, p. 17)

Such an approach is particularly useful to studies focussing on the role of community in tackling climate change for two key reasons. First, it allows an exploration of the range of social contexts within and beyond the household that shape practices and behaviours. In particular, the performance of community in the public sphere can be usefully contrasted against social interactions within the household. Doing so may serve to reveal the ways in which social dynamics

influence, or not, the ability of community to tackle climate change across a range of social contexts. In addition, Goffman's work may provide valuable insights into the 'messy actualities of social relations' (O'Malley *et al.* 1997, p. 509) and the effect they have on efforts to govern climate change at a distance.

This section has highlighted how the work of Erving Goffman provides a valuable and currently missing perspective from which to analyse the role of community in governing environmental change. However the crucial point to note, and as shown in Sections 2.1 and 2.2, is that community has been appropriated toward the achievement of policy goals as part of what Rose (1996) describes as the re-figuring of the territory of government. Community, he argues, has become a site for the administration of individual and collective existence as part of a new form of *governmentality* that seeks to govern the population at a distance (Foucault 1978, 1982; Rose 1996; Rose *et al.* 2006; Dean 2010).

## *2.4 Governmentality: linking the governance of environmental change and community*

In recent years a number of western governments have attempted to alter individual's behaviour towards low(er) carbon lifestyles in recognition of the need to act on the perceived threat posed by climate change. Information campaigns such as Act on $CO_2$ and Helping the Earth Begins at Home in the UK, the Cities for Climate Protection campaign in the United States and the Green Plan in Canada have used individualising, rationalist discourses in an attempt to encourage behaviour change amongst the target population in order to control the 'conduct of carbon conduct' (Paterson and Stripple 2010, p. 342).

A growing yet still limited literature has examined or commented on these campaigns from a green governmentality perspective (e.g. Darier 1996, 1999;

Slocum 2004; Oels 2005; Bäckstrand and Lövbrand 2007; Rutherford 2007; Rutland and Aylett 2008; Summerville *et al.* 2008; Paterson and Stripple 2010; Webb 2012). Yet to date no study has been conducted that analyses the role of community in tackling climate change through the neo-Foucauldian framework of governmentality as detailed in the work of Miller and Rose (1990; Rose and Miller 1992, 2008) and Dean (2010).

Green governmentality refers to a global form of power tied to the modern administrative state, multi-lateral institutions such as the IPCC, and the business community (Bäckstrand and Lövbrand 2007, p. 126-131). It can be seen as an instance of the reinforcing of the power of the administrative state in the name of the 'responsible stewardship of nature' (Luke 1999, p. 129) in order to legitimise governmental interventions. Green governmentality frames climate change as a global issue requiring global solutions that can only be addressed by the existing hegemonic power structures of the nation state, multi-lateral institutions and the globalised business community (Oels 2005).

The value of analysing community-based policy initiatives such as the LCCC through a governmentality lens lies in the fact that it does not seek to answer the question of how effective it was or was not, but rather how it came to be constituted in a particular form as an appropriate response to a problem of government (Rose and Miller 1991). It begins to ask new questions of initiatives aimed at governing environmental change in general, and in this context those using community as a mechanism through which to deliver a government funded carbon governance scheme.

The current interest in community as a means of encouraging positive environmental change as part of a wider strategy towards tackling climate change

represents another policy arena into which it has been put to use. Yet as highlighted in Section 2.2, community is a contested concept, open to multiple interpretations and applications that requires a more critical perspective to be taken in relation to its role in the governance of environmental change (Walker 2011). Analysing the role of community in tackling climate change through a governmentality lens will therefore provide a contribution to the literatures on governmentality and the governance of environmental change, and go some way to providing the critical perspective currently lacking.

As Barry et al. (1996) observe; a core function of neoliberal political rationality is the redefining of the role and function of the state, with it withdrawing from or reconfiguring certain responsibilities. As part of that reconfiguring, appeals to community have become a central component of strategies of government (Rose and Miller 2008). The Third Way policy agenda of the New Labour era, and its Big Society successor under the current coalition government have both used appeals to community as a means by which to govern the population at a distance to address a range of perceived or constructed social ills.

Governing the population at a distance is the central concept within governmentality (Dean 2010). According to Dean, to govern is 'to structure the field of possible action, to act on our own or others' capacities for action' (Dean 2010, p. 22), while Rose defines governing as 'all endeavours to shape, guide, direct the conduct of others – and ways in which one might be persuaded to govern oneself' (Rose 1999, p. 3). Rose and Miller, drawing on Callon and Latour (Callon and Latour 1981; Callon 1986; Latour 1986, 1987), develop the idea of governing at a distance in which an issue is problematised and subject to *translation* whereby an actor or force:

> ‘is able to require or count upon a particular way of thinking and acting from another, hence assembling them together into a network not because of legal or institutional ties or dependencies, but because they have come to construe their problems in allied ways and their fate as in some way bound up with one another.’
>
> (Rose and Miller 2008, p. 34)

The act of governing entails the possibility that the governed are to some extent capable of acting and thinking otherwise (Dean 2010); therefore the aim of governing is to acknowledge the capacity of the governed to act in certain ways and utilise it in the achievement of one’s own goals (Rose 1999). A crucial element of the resultant power relations, Dean argues, are ‘the capacities and liberties of the various actors and agencies formed in practices of government’, and that to ask how governing works is ‘to ask how we are formed as various types of agents with particular capacities and possibilities of action’ (Dean 2010, p. 40). Dean (2010) outlines four dimensions to shape an analysis of governmental rationality from a governmentality perspective. They are a focus on: characteristic forms of visibility, ways of seeing and perceiving; the production of regimes of truth that shape how the world is understood; the construction and deployment of technologies of government and the experts that administer them; and the subjective formation of identity. An analysis of government is:

> ‘concerned with the means of calculation, both qualitative and quantitative, the type of governing authority or agency, the forms of knowledge, techniques and other means employed, the entity to be governed and how it is conceived, the ends sought and the outcomes and consequences.’
>
> (Dean 2010, p. 18)

In particular, it is a study concerned with analysing the specific conditions under which entities such as the LCCC emerge, exist and change. Rutherford argues that by asking how these four analytical dimensions are continually being performed allows the location and identification of 'social, cultural, ecological and a host of other discourses and practices as power-infused relations rather than innocent endeavours' (2007, p. 294). Miller and Rose meanwhile argue that to understand modern forms of rule requires:

> 'an investigation not merely of grand political schema, or economic ambitions, nor even of general slogans such as state control, nationalization, the free market and the like, but of apparently humble and mundane mechanisms which appear to make it possible to govern: techniques of notation, computation and calculation; procedures of examination and assessment; the invention of devices such as surveys and presentational forms such as tables; the standardization of systems of training and the inculcation of habits; the inauguration of professional specialisms and vocabularies; building design and architectural forms – the list is heterogeneous and is, in principle, unlimited.'
>
> (Miller and Rose 1990, p. 8)

Such mechanisms, they argue, are essential in order to create knowledge about an entity in order to render it governable. For example, the production of knowledge about the environment is key to formulating the terms of its management (Darier 1996, 1999; Bäckstrand 2004; Bäckstrand and Lövbrand 2007; Rutherford 2007). As Bäckstrand observes:

> 'Environmental problems similar to 'madness', 'sexuality' and 'criminality' are not 'out there' in a pure and unmediated form, but various techniques, procedures and practices construct and produce these fields in such a way that they become both objects for knowledge and targets for regulation.'
>
> (Bäckstrand 2004, p. 703)

This is true at scales from the international, in the form of the work of the Intergovernmental Panel on Climate Change; the national, such as the five-year carbon budgets set by the Climate Change Committee as part of DECC's commitments under the Climate Change Act (2008); and the local, for example the UK Local Government Association's (LGA) Climate Local agenda that seeks to 'drive, inspire and support council action on carbon reduction and climate resilience' (LGA n.d).

Within the context of this thesis, environmental change, community, and community members all require the creation of knowledge about them in order to render them real, capable of categorising, and capable of being governed. Rose argues that we can be governed through our allegiance to particular communities of morality and identity even where the allegiances presupposed do not immediately appear to exist. Such programmes of government, he argues:

> 'attempt to 'empower' the inhabitants of particular inner-city locales by constituting those who reside in a certain locality as 'a' community, by seeking out 'community groups' who can claim to speak 'in the name of the community' and by linking them in new ways into the political apparatus in order to enact programmes which seek to regenerate the economic and human fabric of an area by re-activating in 'the community' these 'natural' virtues which it has temporarily lost.'
>
> (Rose 1996, p. 336)

Of particular relevance here is Dean's observation that 'in order to work, governing often concerns the formation of the subjectivities through which it can work' (Dean 2010, p. 87). The literature on green governmentality has shown how 'responsible, carbon-calculating individual[s]' (Rutland and Aylett 2008, p. 644) or 'self-regulating, carbon-conscious citizens' (Paterson and Stripple 2010, p. 345) have

been brought into being in a number of initiatives that aimed to combine saving the planet with saving the individual money (see also Slocum 2004). The key point being that in each case the governmental target of these initiatives was an individual, with an imposed subjectivity based on the carbon-conscious consumer. However as shown in Section 2.1, approaches focusing on changing individuals have achieved little success as a result of failing to adequately address the social contexts in which individuals exist and the effect this has on behaviour. The key challenge in governing environmental change through community therefore becomes one of imposing a subjectivity through which individuals' can identify themselves as a member of a community and alter their behaviour according to its social norms. Yet as discussed in Section 2.2, community is multiple, partial and contingent. Of particular significance to efforts at governing environmental change through community is Rose's observation that:

> '…our allegiance to each of these particular communities is something that we have to be made aware of, requiring the work of educators, campaigns, activists, manipulators of symbols, narratives and identifications.'
>
> (Rose 1996, p. 334)

Combined, these observations suggest that a key challenge to governing environmental change through community is to do so across each community an individual is a member, as to do otherwise may achieve only partial success in achieving the supposed goal of tackling climate change: lifestyle changes made in one community context such as the local neighbourhood may easily be countered by those made in another such as the workplace. But how, if at all, is such a project possible? And if it is not, what does this tell us about the role of community in

governing climate change? They also highlight the importance of analysing projects such as the LCCC through a governmentality lens in order to understand *how* it came to be constituted as an appropriate response to tackling climate change (*cf.* Rose and Miller 2010), a perspective that is currently missing from the literature. One of the key contributions of this thesis is in addressing that gap.

## *2.5 Summary and Research Questions*

The central argument of this chapter is that the role of community in tackling climate change, viewed from a range of different perspectives on the governance of environmental change, is both under theorised and lacking empirical evidence to support the claims made of it by academics and policymakers.

This chapter has shown that community is a contested term open to multiple interpretations and applications ranging from normative to instrumental. As also shown in this chapter, community is an inherently political concept that has been used by various Governments as a means through which to govern the population at a distance in order to meet policy objectives. These aspects of community remain unexplored in the literature on the governance of environmental change. As previously noted Walker has suggested that there is a need ‘to be open to a rather more problematic reality of community-based action as might be evident in policy and campaigning rhetoric’ (Walker 2011, p. 778). While acknowledging the range of community based activity occurring internationally, for which there is much to be enthusiastic about, he has warned of the practical challenges such projects face.

In addition, Walker has suggested there is a need to maintain a *critical* perspective when conducting researching on the role of community in the governance of environmental change (Walker 2011). In recognition of the value of such an approach, this literature review has set out a conceptual framework through

which to begin to do so. Its starting point is the recognition that community is partial, multiple and most importantly *performed*. While these points have been made frequently by sociologists and political scientists, to date they have not been adequately incorporated into research on the role of community in governing environmental change. In order to begin to develop the more critical perspective called for there is therefore an urgent need to understand *how* community is performed within efforts to use it as a means by which to govern environmental change. The literature review has highlighted how the work of Erving Goffman, and in particular the dramaturgical metaphors of front and back stage, impression management, frame analysis and stigma, provide the necessary means through which to develop an understanding of how these performances unfold.

Having understood that community is constructed and performed in multiple ways across multiple areas of social life, the literature review has also drawn attention to the various ways in which these performances are *scripted* or controlled by others. In order to further develop a critical perspective there is therefore a need to analyse these performances through the neo-Foucauldian framework of governmentality. Doing so will begin to develop a critical understanding of how they came to be constructed as an appropriate response to a problem of government; the problem in this context being the governance of environmental change through community.

Developing the critical perspective that Walker calls for has been one of my key motivations. It is one of the original and novel aspects of the contribution to knowledge made by this thesis, the overarching research question of which is:

How, if at all, does community contribute to tackling climate change?

Three sub-questions have emerged from the literature review to further guide the research undertaken. They are, within the contexts of efforts to use community as a means of encouraging positive environmental change:

1. What does community mean?
2. What effects, if any, do these meanings have on efforts to govern environmental change through community?
3. What is the role of community in tackling climate change?

As shown in this literature review, much of the existing literature pre-defines or makes assumptions about the existence of community in some way. This is problematic with such a contested concept. The aim of the first sub-question is therefore to contribute empirical evidence of the meaning of community from the perspective of those directly involved in projects based around it, rather than theorising or making assumptions regarding community from a distance.

The review has also highlighted the academic and policy rhetoric surrounding community as a context for governing positive environmental change, together with the lack of empirical evidence to support such a claim. In order to address these points, the review has outlined a multiple model approach to theorising the governance of environmental change which I adopt in answering the second sub-question.

Introducing the political aspects of community begins to ask new questions of how it can tackle climate change, together with an analytical context that is missing from existing literature. The work of Middlemiss (2008) provides valuable insights into the range of contexts that stimulate behavioural change within community-based efforts at environmental change. However what is of particular relevance to this

thesis is that despite identifying a series of contexts that related to the specific community-based initiative under investigation, the wider political and policy contexts in which they existed and its impact on the initiatives has not been explored. The role of government in shaping that context, or in the language of governmentality ‘shaping the field of action’ (Dean 2010), is therefore currently missing from the literature. This is a significant gap in our existing understanding of how community can tackle climate change. The third sub-question addresses this point, while also examining how other actors involved in the LCCC understand the role of community in tackling climate change, and with what implications.

Throughout the literature review the importance of context in determining an individual’s ability to act in any given situation has been stressed. In order to address this point and provide context-dependent answers to the questions posed by this thesis there is perhaps only one appropriate methodological approach to adopt: the case study, an argument I develop in the following chapter.

# Chapter 3 Methodology and Methods

As noted in the Introduction and Chapter 2, policy appeals to 'community' as a normative concept have been critiqued for their assumption of a homogeneous entity that can be manipulated through generic policy tools to meet a range of social and environmental goals. I have also highlighted the ongoing debate within the literature as to how to define 'community' and the challenges of identifying examples of it in practice. These points highlight an apparently significant gap between policy applications and academic debates over community in that one assumes it is there to be manipulated and the other questions its very existence. How then to proceed? The LCCC winners provided me with a way out of this dilemma in that they were *self-defined* examples of community constructed by individuals within them in order to perform the collective goals set out in their applications to DECC, who in turn recognised them as examples of community. So while I was, and remain, wary of accepting at face value the existence of 'community', the LCCC winners provided me with an opportunity to answer my research questions without fear of being accused of creating my own artificial boundaries around a group of individuals in order to do so.

The chapter begins with an explanation of the philosophical foundations underpinning the thesis, before moving on to present a justification of the methodology, research design and methods I utilised. I then discuss how I went about analysing and writing up the data collected, before concluding with reflections on the ethics of the research process.

## *3.1 Methodological considerations: coming to terms with 'ologies' and* **phronetic** *social science*

When I began my PhD studies I assumed that climate change and community were 'real' entities that could be studied in order to discover definitive truths about each of them. After all, climate change and community seemed relatively straightforward concepts to grasp, and my studentship, titled 'Tackling climate change through community', seemed to provide a clear indication of what it was that I would spend the next three years of my life researching. The fact that our climate is changing is generally accepted and that humans, through our reliance on fossil fuel based energy sources and the greenhouse gas emissions associated with their use, are contributing to it. Equally, many people will recognise and understand a number of uses of the word community such as 'local', 'business' or 'gay'. However as my studies progressed I began to realise that life is not that simple, and that in fact the core concepts within my studentship – climate change and community – are not such readily definable entities at all, but instead contested terms that hold sometimes radically different meanings for different groups in society.

The shaking of the previously unquestioned or indeed acknowledged philosophical foundations from which I approached my research posed a significant challenge to me. If in fact community and climate change were not 'real', what were they, and how could I find out? And so began my first tentative encounters with 'the three musketeers of metaphysics' (Moses and Knutsen 2007, p. 5): ontology, epistemology and methodology.

Ontology, 'the study of being' (Moses and Knutsen 2007, p. 5) asks the question 'What is the form and nature of reality and, therefore, what is there that can be known about it?' (Guba and Lincoln 1994, p. 108), while epistemology, 'the philosophical study of knowledge' (Moses and Knutsen 2007, p. 5) asks the question

‘What is the nature of the relationship between the knower or would-be knower and what can be known?’ (Guba and Lincoln 1994, p. 108). Finally, methodology, ‘the ways in which we acquire knowledge’ (Moses and Knutsen 2007, p. 5), asks the question ‘How can the inquirer (would-be knower) go about finding out whatever he or she believes can be known?’ (Guba and Lincoln 1994, p. 108). What quickly became apparent to me based on the nature of my research and my approach to it was that my philosophical home was in the form of social constructivism described by Moses and Knutsen:

> ‘While many constructivists would agree that the physical world is material, concrete and given by nature, they are loathe to accept the same description of the social world.’
>
> (Moses and Knutsen 2007, p. 193)

In short, there is a distinction between the natural world (that is, the world created by nature that exists independently of humans) and the social world (that is, the world created by humans and without whom only the natural world would exist). Yet while the world is real, the social constructivist approach to knowledge argues that truth is not ‘out there’ waiting to be found, but rather is context-dependent, socially situated and with social consequences. Knowledge, Moses and Knutsen (2007) argue, is always somebody’s knowledge. Therefore constructivists need to be aware of the context in which it is engendered, by whom and for what purpose as to ‘know’, or make knowledge claims about a situation is to be in a position of power. This further requires the need to:

> ‘…consider knowledge in political solidarity with the more marginalized members of society or with the proper respect for (and empathy) with the object at hand. In short, constructivists approach the world and its knowledge *critically*.’
>
> (Moses and Knutsen 2007, p. 194 emphasis in original)

However I recognise that in order to fulfil the requirements of a PhD I am also in a position of power through making knowledge claims about a particular situation. This recognition requires the adoption of a reflexive stance on my positionality throughout the research process, and an acknowledgement that the resulting knowledge can only ever be a partial representation of events based on my interpretation of them. Throughout my research I have endeavoured to show the proper respect to both the research process and those being researched that Moses and Knutsen (2007) state is required. A constant guide in this respect has been the work of Bent Flyvbjerg and his call for a *phronetic* approach to social science.

Flyvbjerg (2001) argues that within social science *phronesis*, the third of Aristotle's three intellectual virtues (summarised in Table 3.1) has been marginalised by *episteme*. As a result, social science fails as it is attempting to emulate natural science to create universal, context-independent truths. In order to succeed again he argues it is necessary to incorporate *phronesis* into social science and in particular its recognition of the context-dependent nature of knowledge. According to Flyvbjerg, a *phronetic* approach to social science should be guided by the following four value-rational questions:

1. Where are we going?
2. Is this desirable?
3. What should be done?
4. Who gains and who loses, and by which mechanisms of power?

(Flyvbjerg 2001, p. 60)

'We' is also context-dependent, along with the partial answers to the questions posed. Yet being context-dependent and partial does not limit the value of

the knowledge created, but rather is a contribution to 'the ongoing social dialogue about the problems and risks we face and how things may be done differently' (Flyvbjerg 2001, p. 61).

**Table 2.1 Summary of Aristotle's intellectual virtues (adapted from Hargreaves 2012, p. 316)**

| | |
|---|---|
| Episteme | Scientific knowledge. Universal, invariable, context-independent. Based on general analytical rationality. The original concept is known today from the terms epistemology' and 'epistemic' |
| Techne | Craft/art. Pragmatic, variable, context-dependent. Oriented toward production. Based on practical instrumental rationality governed by a conscious goal. The original concept appears today in terms such as 'technique', 'technical,' and technology' |
| Phronesis | Ethics. Deliberation about values with reference to praxis. Pragmatic, variable, context-dependent. Oriented toward action. Based on practical value-rationality. The original concept has no analogous contemporary term |

As an aid to the practice of *phronetic* social science Flyvbjerg (2001) provides nine methodological guidelines (outlined in Table 3.2) which, he stresses, should not be seen as imperatives but rather 'cautionary indicators of direction' (p. 129). While acknowledging that methodological questions may be of significance he places no primacy on one methodology over another. To Flyvbjerg it is:

> '…more important to get the result right, that is, arriving at a social science which effectively deals with public deliberation and praxis, rather than being stranded with a social science that vainly attempts to emulate natural science.'
>
> (Flyvbjerg 2001, p. 129)

In short, if the methodology is able to provide answers to the four value-rational questions guiding *phronetic* social science, it is appropriate. In Flyvbjerg's

work (1998, 2001, 2006) this has often been the case study, as it is in my own research.

**Table 3.2 Methodological guidelines to inform a phronetic approach to social science (Adapted from Hargreaves 2012, p. 317)**

| | |
|---|---|
| *1. Focus on values* | Research should seek to provide context-specific answers to the 4 value-rational questions outlined above. |
| *2. Place power at the core of analysis* | The operation of power in specific contexts should be analysed as central to how action proceeds. |
| *3 Get close to reality* | Research should focus on problems that are relevant and important to the group(s) being studied, and should at all stages be undertaken close to these group(s) to ensure its relevance and to gain feedback. |
| *4 Emphasise little things* | Research should not be distracted by what appear to be 'big problems', but should focus on the details and minutiae of specific cases to find the big within the small. |
| *5 Look at practice before discourse* | Research should focus on what is actually done, how events unfold in everyday situations, before making judgements about their significance or meaning. |
| *6 Study cases and contexts* | *Phronetic* social science should concentrate on developing detailed knowledge of specific examples and case studies, rather than seeking to generalize beyond specific situations. |
| *7 Ask 'how' – do narrative* | Research should focus on processes as they unfold, taking account of their complexity and history, rather than dissecting social life into static and isolated factors or events. |
| *8 Join agency and structure* | Research should analyse the interplay of agency and structure in specific, concrete cases asking how structures are created by agents and how, in turn, those structures shape action. |
| *9 Dialogue with a polyphone of voices* | *Phronetic* social science should not seek to be the omniscient commentator on social life, but should actively incorporate multiple voices within its account, and should perceive itself as simply one voice among many, albeit (hopefully) a well-informed one. |

## *3.2 The case study as methodology*

### 3.2.1 Why use a case study approach?

Based on the philosophical stance I have adopted, the research questions I am asking and the focus on the role of community in the governance of environmental change, there is a clear choice as to the most appropriate methodological approach to adopt for my research: the case study.

The case study methodology provides a means by which to create knowledge based on the in-depth exploration of context-dependent social phenomena (Yin 2009) and as such fits with both a social constructivist and *phronetic* approach to inquiry. Case studies are 'tailor made for exploring new processes or behaviours or ones which are little understood' (Hartley 1994, p. 213). They can provide detail on the 'little things' (Nietzsche 1969, in Flyvbjerg 2006, p. 238) of everyday life in a way that methods such as large scale quantitative surveys are less capable of doing so due to their insensitivity to context. Yin argues that 'the distinctive need for case studies arises out of the desire to understand complex social phenomena' (Yin 2009, p. 4), and that they are particularly suited to answering the types of research questions I am asking in this thesis that ask 'how' and 'why' a phenomenon occurs.

Community, one of the central concepts within my thesis, has been shown to be subject to multiple interpretations, applications and definitions. If ever there was a concept that is both complex and context-dependent it is community. Similarly, the role of community in governing environmental change is little understood. Therefore a case study methodology is required as it is capable of providing context-dependent causal explanations of social phenomena that go beyond the reductive, methodological individualism of quantitative surveys or single methods of data collection such as elite interviews (Yin 2009).

Yet as Flyvbjerg (2006) points out, despite the apparent strengths of the case study it is regularly criticised, or misunderstood to use his term. He highlights five such misunderstandings:

> *Misunderstanding 1:* General, theoretical (context-independent) knowledge is more valuable than concrete, practical (context-dependent) knowledge.
> *Misunderstanding 2:* One cannot generalize on the basis of an individual case; therefore, the case study cannot contribute to scientific development.
> *Misunderstanding 3:* The case study is most useful for generating hypotheses; that is, in the first stage of a total research process, whereas other methods are more suitable for hypotheses testing and theory building.
> *Misunderstanding 4:* The case study contains a bias toward verification, that is, a tendency to confirm the researcher's preconceived notions.
> *Misunderstanding 5:* It is often difficult to summarize and develop general propositions and theories on the basis of specific case studies.
>
> (Flyvbjerg 2006, p. 221)

According to Flyvbjerg, the misunderstandings stem from the assumption that cases cannot be of value in and of themselves, and that all research should be linked to the hypothetico-deductive model of explanation. It is a position he rejects. He argues that through case-study research it is possible, although not always necessary or desirable, to make the particular general; to have hypotheses falsified; and to explain the difficulty in summarising the case as being due to 'the properties of the reality studied than to the case study as a research method' (Flyvbjerg 2006, p. 241). To Flyvbjerg, it is 'the force of example' (2006, p. 228) that the case-study provides that is one of its strengths: what it lacks in breadth it makes up for in depth. The 'complexities and contradictions of real life' (Flyvbjerg 2006, p. 237) that case-studies can reveal, while difficult to summarise, are often a sign that the study has revealed a particularly detailed problem worthy of the effort. In short, the

misunderstandings stem from a misunderstanding of their own: the purpose of social science research in general; and the case study in particular. He argues that while proof is hard to come by in social science, learning is certainly possible. It is to this purpose that the case study is ideally suited, and why I have chosen it for my research. The closeness of the case study to real-life situations and the depth of knowledge it can generate allows:

> 'the development of a more nuanced view of reality, including the view that human behaviour cannot be meaningfully understood as simply the rule-governed acts found at the lowest levels of the learning process and in much theory.'
>
> (Flyvbjerg 2006, p. 223)

Yet the depth of knowledge and more nuanced view of reality the researcher may acquire during the course of the case-study present problems of their own. As Flyvbjerg puts it: 'Who will want to learn about a case like this, and in this kind of detail?' (Flyvbjerg 2006, p. 237). As the amount of data I was acquiring grew and grew during my fieldwork I kept thinking of this phrase. Yet if *I* was still interested in gathering more information to help me better understand what was going on within my case study surely others would find it useful when reading my account of it, wouldn't they? It was this thought that kept my dialogue with a polyphony of voices ongoing to ensure that what this thesis may lack in breadth is more than made up for in depth.

It is the depth of knowledge of my case that I see as being one of the most important contributions of this thesis; in particular as it is the first time a detailed comparative case study analysis of a government funded policy experiment in the role of community in the governance of environmental change has been conducted.

### 3.2.2 From cases to case: the evolution of a research design

Seeing the LCCC winners as a potential population from which to select cases, I sent an introductory email[3] in March 2010 to the program's principal organiser within DECC to introduce myself and my research aims. Following a positive response I arranged a meeting to discuss my research plans. The meeting, which took place in early April 2010, was designed for me to gain further information on the LCCC as well as a means by which to establish a relationship with a potential gatekeeper to the winning communities. This was an important consideration as it had already been made clear to me that a number of other universities were exploring research opportunities with the LCCC winners. As such I was keen to ensure I had the support of DECC which, I considered, would enhance the credibility of any approaches I made to the LCCC winners.

Based on the outcome of the meeting and the initial background research I conducted on the winning applicants I contacted the organisers of the phase one projects. My aim was to conduct a series of pilot interviews with them to gauge their suitability as cases for my research. I drafted introductory letters tailored to each community outlining my research proposal[4], which I considered important as it showed I had done some initial research on their project and had some familiarity with their work, rather than being a generic request for access. The letters were sent by my DECC gatekeeper to each of the Phase One organisers in June 2010. Seven of the phase one winners replied positively to my request, each of whom I subsequently interviewed (detailed in Table 3.3).

My research interest at this point was focussed on the community projects rather than the broader policy context in which they were set. As a result the

[3] Included as Appendix 1.
[4] An example of which is included as Appendix 2.

interview protocol was designed to gain an understanding of how their respective projects were structured, and how, if at all, I might be able to conduct a multi-case study based on the differences between them. At the same time, and following a *phronetic* approach, the interviews were also about how I might be able to contribute answers to questions that the organisers were asking of their own project.

**Table 3.3 Details of pilot study interviews**

| No. | Date | LCCC Project |
|---|---|---|
| 1 | 02/06/10 | Muswell Hill |
| 2 | 24/06/10 | Sustainable Blacon |
| 3 | 24/06/10 | Meadows |
| 4 | 25/06/10 | Reepham |
| 5 | 29/06/10 | Lammas (site visit) |
| 6 | 07/07/10 | Chale Green |
| 7 | 19/07/10 | Berwick |

I conducted an initial appraisal of the pilot interviews and analysed documentary information such as their applications to the LCCC and supporting materials such as websites. What became clear was that each of them would be suitable, interesting, and contrasting case-studies that would provide me with the opportunity to get close to the respective projects. At this point the depth versus breadth issue of case-study research became an issue: how many cases should I choose, and where?

Case selection was ultimately based on which projects would best enable me to answer my research questions. To that end I selected Blacon, the Meadows and Muswell Hill, all of which shared an urban setting yet had structured their respective projects very differently. Blacon and The Meadows were chosen as they shared similar demographic and geographic characteristics yet utilised very different means of engaging with residents in their respective projects. The Meadows project

focussed on the installation of 55 solar PV arrays on a mix of low-income owner-occupied homes, Nottingham City Homes (NCH) managed social housing, local schools and a community garden. The Blacon project focussed on refurbishing two demonstration houses to showcase low-energy technologies to the Blacon public while simultaneously running a year-long energy awareness project, the Blacon Energy Management Program (BEMP), in which 150 local households participated. The Muswell Hill project was financed by the Greater London Authority's Low Carbon Zone (LCZ) awards scheme and the LCCC. It combined installation of solar PV arrays on several local buildings such as a church and supermarket with a volunteer-led door knocking project to encourage residents to install a range of energy efficiency measures in order to decrease their carbon emissions. Blacon and the Meadows shared tightly constrained physical boundaries, in contrast to Muswell Hill with its boundaries created artificially by legislators. It was this range of similarities and differences that I considered significant enough to make cross-case comparisons that were not simply comparing apples with oranges.

I asked each project organiser for permission to continue working with them and following positive replies set about arranging site visits and interview dates to begin the formal part of my research. In addition I arranged to formally interview my DECC gatekeeper. The interviews, conducted between late July and early September 2010, were designed to explore the use and construction of community by the project organisers and my DECC gatekeeper; their views on community as a tool to govern environmental change and/or tackle climate change, and how they planned to evaluate their projects.

Details of the rationale behind the interview as method and the protocol I developed are provided in Section 3.4; however what is relevant to this discussion is

what emerged from the interview analysis. It became apparent to me that by examining each case in isolation from the policy context in which they were set I was de-contextualising them from an important factor shaping their evolution. By focussing on the 'little things' of each community project I had revealed the 'big thing' looming over each of them: the potential changes in the policy context brought about by the change in Government following the May 2010 election.

It was this recurring theme, discussed in terms of the uncertain role of community in future policy aimed at tackling climate change, that each project organiser and my DECC gatekeeper spoke of that led me to re-examine my research design. Following Flyvbjerg's advice that research should focus on problems that are relevant and important to the groups being studied I altered the structure of my research design from a series of cases drawn from the LCCC to the LCCC as *the* case, with my initial cases now forming embedded units within it (shown in Fig 3.1).

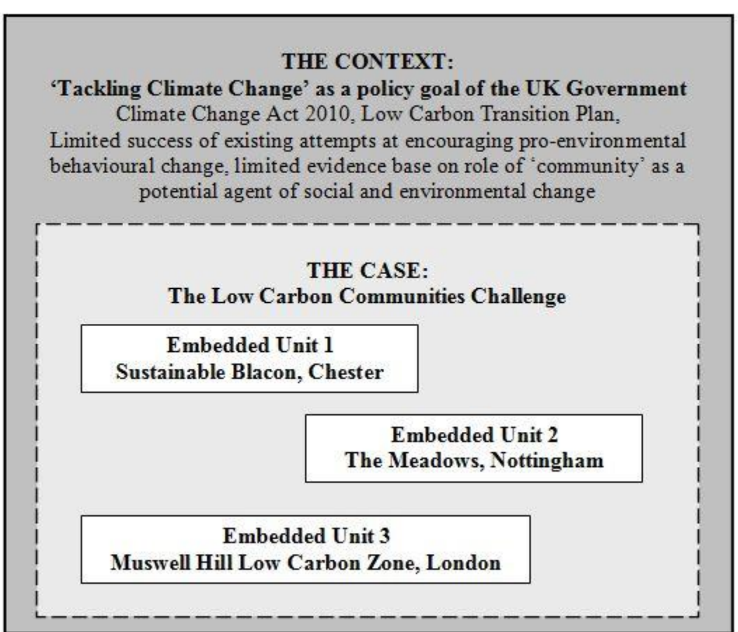


**Figure 3.1 The final case study design (adapted from Yin 2009)**

By altering my case design in this way I would be able to incorporate what had hitherto been missing from my research design, namely the political and policy contexts of the LCCC. As a result the contribution of my thesis changed from adding to the evidence base on the role of community in encouraging positive environmental change, a valuable contribution in itself, to be the first that also took account of the wider political and policy context in which these projects exist.

### 3.2.3 What is this a case of?

Stake (1995) draws a distinction between an *instrumental* case study in which the case is but one example of many; and an *intrinsic* case study in which the focus is solely on the case in question. Flyvbjerg (2006, p. 230) adds the following to this description of the types of case that exist:

1. *Extreme/deviant cases*: To obtain information on unusual cases, which can be especially problematic or especially good in a more closely defined sense.
2. *Maximum variation cases*: To obtain information about the significance of various circumstances for case process and outcome (e.g., three to four cases that are very different on one dimension: size, form of organization, location, budget).
3. *Critical cases*: To achieve information that permits logical deductions of the type, 'If this is (not) valid for this case, then it applies to all (no) cases.'
4. *Paradigmatic cases*: To develop a metaphor or establish a school for the domain that the case concerns.

Therefore my study of the LCCC, with the Muswell Hill Low Carbon Zone, Sustainable Blacon and the Meadows as embedded units within the larger case is an instrumental (Stake 1995) and potentially paradigmatic case study (Flyvbjerg 2001). It is instrumental in the sense that policy appeals to community as a means of encouraging environmental change are not confined to the LCCC, nor solely to the United Kingdom. It has the potential to be paradigmatic in that the context-dependant depth of knowledge gathered may establish the knowledge base from which similar initiatives are compared.

Based on the contested nature of community and its role in governing environmental change as part of a wider strategy to tackle climate change I believe strongly we need to learn about the LCCC, and that the case study is the appropriate methodology by which to do so. In the following section I present details of the methods I employed in order to conduct the case study.

### *3.3 Methods*

My research focus is on understanding the role of community in tackling climate change. Combined with the types of questions I am asking in this thesis as detailed in Section 2.5, and the social constructivist approach to enquiry through which I am answering them, qualitative methods as part of a case study methodology must assume primacy to allow the 'polyphony of voices' (Flyvbjerg 2001) in my research to be heard.

Yin (2009) outlines six potential sources of case study evidence: documentation, archival records, interviews, direct observations, participant observation and physical artefacts, of which I have collected four for my research (outlined in Table 3.4). These multiple sources of evidence could be interpreted as a form of data triangulation, collected with the view to increasing the validity of my

results and produce objective facts about my research findings (Yin 1998; Patton 2002; Mason 2006). However another interpretation in agreement with the social constructivist perspective that I believe is necessary for this type of research, is that they represent additional social constructs for me to examine in order to gain a greater understanding of what was going on in the LCCC.

The aim of constructivism is to understand social phenomena, and relies on hermeneutical methodologies which focus on interpreting text – whether it is written or spoken (Guba and Lincoln 1994, p. 109). There is, therefore, a tendency for qualitative methods to dominate within this approach to social enquiry (Denzin and Lincoln 2011).

**Table 3.4 Research data sources**

| | |
|---|---|
| **Documentation** | • LCCC Applications – All ten Phase One winners and a number of unsuccessful applicants – 17 in total<br>• Secondary data such as baseline reports on attitudes and awareness of climate change within LCCC areas<br>• LCCC Reports e.g. Interim and Final Report<br>• Websites<br>• Policy documents, e.g. LCTP, Green Deal, Localism Act |
| **Direct Observations** | • Muswell Hill LCZ Steering Group Meetings<br>• Muswell Hill LCZ focus group - observer<br>• Meadows / Blacon / Muswell Hill – site visits |
| **Participant Observations** | • Low Carbon Communities Network annual conference<br>• Academic workshops related to community energy projects<br>• DECC sponsored Birmingham Community Energy Roundtable<br>• Events such as ESRC Communities and Energy Launch<br>• Attendance/participation at Sustainable Blacon evaluation meetings and planning sessions for Muswell Hill LCZ focus group protocol development |
| **Interviews** | • DECC Policy officials/Expert network (10)<br>• Community Practitioners (7)<br>• Community Members (34)<br>• **Total of 51 individuals interviewed** |

Qualitative research can be seen as a strategy whose emphasis on a relatively open-ended approach to the research process can often produce surprising results leading to new insights. However, I do not consider quantitative research as a positivistic, mechanical application of neutral tools that cannot achieve similar results (*cf.* Bryman 2006). In earlier research (Baldwin 2010) I employed a mixed method approach that incorporated quantitative survey data with semi-structured interviews to explore the role of community in a football club's efforts at becoming carbon-neutral. Therefore I am not allying myself with a 'qualitative or nothing' approach, instead choosing to recognise the number of contributions that quantitative methods can make to the research process such as identifying areas which might benefit from further descriptive analysis (Cupchik 2001; Moran-Eliss *et al.* 2006).

The choice of qualitative methods represents a means by which I have sought to increase the *depth* of explanation in what follows in order to construct a case study with 'the force of example' (Flyvbjerg 2006, p. 228). The following sections provide details on the methods I employed in order to do so, along with a consideration of why I considered them appropriate in this context.

### 3.3.1 Documentation

Documentation, in particular applications made to the LCCC by practitioners and official DECC reports on its progress, was an important and necessary data source for this project. It provided important background material at the beginning of the project, helping me to shape the final research design. Documentation was also a means by which to compare the way different stakeholder groups spoke of their experience of the LCCC with the way it was being described in print.

### 3.3.2 Direct and Participant Observation

Direct observation ranged from the formal, such as attendance as an observer at a number of Muswell Hill LCZ steering group meetings, to less formal events such as field visits to each study location in which I made notes on topics including the appearance of the neighbourhood and the layout of the main waiting area at DECC's offices in London.

What was particularly interesting to me was how during the course of my research my role in some of these situations progressed from that of a direct observer to an active participant. This was particularly true of my relationship with the practitioners in Blacon and Muswell Hill, where I found myself being asked to contribute to meetings rather than simply observe them. For example in Muswell Hill I was asked to contribute to the development of a focus group protocol the steering group were designing as part of their program evaluation. I was happy to contribute where I could, particularly as it showed recognition of their perception of me as someone capable of contributing answers to the questions they were asking of their work – one of the key elements of a *phronetic* approach to social enquiry.

In addition, attendance at workshops, seminars and conferences related to my research provided valuable additions to the other evidence I was collecting. They provided an opportunity to meet policy officials and practitioners and observe speeches, workshop discussions and casual conversations in which themes relevant to my research were being discussed. An example of the type of event I attended was the 'Community Energy Roundtable' organised by DECC. Held in July 2011, its aim was to discuss the role for community energy projects within DECC's broader climate change and energy security policy agenda.

### 3.3.3 Interviews

A total of fifty-one individuals were interviewed between March 2010 and January 2012. Of these, ten were DECC officials or experts (detailed in Table 3.5), seven were community practitioners responsible for delivering the projects locally (detailed in Table 3.6), and thirty-four were community members from across the three areas, with numbers split evenly between them (detailed in Tables 3.7, 3.8 and 3.9). With the exception of the introductory interview conducted with my DECC gatekeeper, all interviews were conducted after the May 2010 general election.

Based on the types of questions I was asking and informed by my desire to understand what was going on in the LCCC, semi-structured, in-depth interviews formed the core method for this research.

Semi-structured interviews were chosen as they allowed a more open and in-depth exploration of the topic at hand (Stroh 2000; Esterberg 2002). They were an appropriate method to use in this context as they can be a sensitive way to examine people's 'life-worlds' in order for the researcher to gain an understanding from the perspective of those being researched (Stroh 2000, p. 202).

As Valentine observes, the interview process allows 'interviewees to construct their own accounts of their experiences by describing and explaining their lives in their own words' (Valentine 2005, p. 111). So while Crang (2003) critiques the interview as being overly relied upon as a method within qualitative research, I would argue that as I am interested in the socially constructed nature of community interviewing the people involved in constructing it is an essential method by which to approach my research.

It was important for me to interview individuals from each stakeholder group in the LCCC as without doing so my account of what was happening would be even more partial than that which follows. Further to that, from a *phronetic* standpoint it

was necessary to incorporate a dialogue with as many voices as possible into my research to ensure that my account, while simply one of many possible, is hopefully a well-informed one.

My ultimate goal in conducting the interviews was to reach 'theoretical saturation', which occurs when the data emerging from them becomes repetitive and no new themes are emerging (Strauss and Corbin 1998, p. 212). There was, of course, the possibility that if I had conducted just *one* more interview then a new theme may have emerged, but on that basis the only means to avoid such a scenario was to interview *everyone* involved in the LCCC, which was clearly not practical. To that end, the following strategies and sampling methods were employed to find individuals suitable and willing to provide their voice to my account of what happened and provide answers to my research questions.

**Policy officials and the expert knowledge network**

In order to answer my research questions I needed to interview key people directly associated with the LCCC, either within DECC or as part of the wider expert knowledge network that contributed advice or evaluation services to the project. In the initial stages of my research this was limited to people involved in creating the LCCC and designing the evaluation strategy. At the time I felt that would be sufficient to gain background information on the project to inform my work with the practitioners and community members; however as my research focus shifted to the LCCC itself the need arose to interview other experts involved in providing expert advice to DECC on what community is, what it can do, and how you go about evaluating it.

Identifying who those policy officials and experts were involved a combination of strategies. My gatekeeper at DECC provided introductions to a number of members of the expert knowledge network; however she had left the department before my research focus had shifted, requiring a different strategy for identifying other potential interviewees. Attending community energy events at which DECC officials working on the LCCC were speaking proved particularly useful as it gave me the opportunity to speak with them about my work before requesting an interview.

The majority of expert network interviewees were recruited through snowballing techniques (Valentine 2005) in combination with a theoretical sampling approach (Strauss and Corbin 1998; Charmaz 2006) in which I asked one interviewee to suggest other people closely linked to the LCCC with whom they thought I should speak.

In total I conducted ten interviews with members of this stakeholder group (detailed in Table 3.5). The DECC officials were all directly involved in the LCCC at some stage of the project, while the expert network interviewees were a mix of academics and external consultants providing advice on its structure and evaluation.

**Table 3.5 Details of policy official and expert network interviews**

| No. | Date | Interviewee Type |
|---|---|---|
| 1 | 08/09/10 | DECC Official |
| 2 | 10/01/11 | DECC Official |
| 3 | 28/01/11 | DECC Official |
| 4 | 30/06/11 | Expert Network |
| 5 | 25/07/11 | DECC Official |
| 6 | 25/07/11 | Expert Network |
| 7 | 09/09/11 | Expert Network |
| 8 | 13/09/11 | Expert Network |
| 9 | 20/09/11 | Expert Network |
| 10 | 25/01/12 | Expert Network |

### Community Practitioners

In order to gain a deeper understanding of how, and with what purpose, each of the embedded units within my case were constructed as a low carbon community it was necessary to interview practitioners involved in creating each project. I had already conducted pilot interviews with a number of practitioners, having gained access to them through an introduction from my DECC gatekeeper. Building on these existing connections I arranged formal interviews with a number of them, at the same time asking for the names and contact details of other people closely associated with each project. In total I interviewed seven practitioners (detailed in Table 3.6).

Each interviewee was directly involved in either preparing the application to the LCCC or delivering the project locally, or both. I spoke with several of the community practitioners on numerous occasions during the course of my fieldwork. Some of these were formal conversations such as at project evaluation meetings I was invited to attend, but often they were more informal, such as at community energy events I attended to which they were also invited.

**Table 3.6 Details of practitioner interviews**

| No. | Date | Unit | Notes |
|---|---|---|---|
| 1 | 28/07/10 | Muswell Hill LCZ | Interviewed several times |
| 2 | 28/07/10 | Muswell Hill LCZ | |
| 3 | 17/08/10 | Meadows | Interviewed several times |
| 4 | 01/09/10 | Blacon | Interviewed several times |
| 5 | 21/01/11 | Muswell Hill LCZ | Interviewed several times |
| 6 | 25/01/11 | Blacon | |
| 7 | 26/01/11 | Meadows | |

These impromptu interviews, while conversational in nature, allowed me to gain further insights into how each project was evolving and the successes, failures and challenges they were experiencing. In addition, they provided me with the

opportunity to strengthen my research ties with each of these practitioners and gain their trust as someone with a genuine interest in the work they were doing.

### Community members

Without the voices of participants in each LCCC project I was working with being heard the central question of my thesis would be unanswerable. To gain access to those voices I turned to a new set of gatekeepers – the practitioners running each project that I was researching. This was necessary as while the population of each area I was working in numbered in the thousands, suggesting that a random sampling approach might be appropriate; the population of each project was much smaller. As a result, recruiting interviewees was done slightly differently in each area I researched.

During a site visit to Blacon in January 2011 I attended an event run as part of the BEMP. I was introduced to the one-hundred or so attendees by the project organiser as a researcher interested in speaking with people who had participated in the program. Nine people came forward to express an interest, seven of whom subsequently were interviewed. In addition, the Sustainable Blacon project organisers emailed participants in the BEMP a copy of an introductory letter[5] I had written outlining my research in which I asked people to contact me directly if they were willing to be interviewed. Four people responded to the email and were subsequently interviewed, resulting in a total of eleven interviews being conducted with participants in the BEMP (detailed in Table 3.7).

[5] Included as Appendix 3. The flyers were customised for each project area.

**Table 3.7 Details of Sustainable Blacon interviewees**

| No. | Date | Tenure | Years in Blacon |
|---|---|---|---|
| 1 | 07/02/11 | Owner-occupier | 12 |
| 2 | 07/02/11 | Owner-occupier | 34 |
| 3 | 07/02/11 | Owner-occupier | 50 |
| 4 | 08/02/11 | Owner-occupier | 30 |
| 5 | 11/02/11 | Tenant – social housing | 57 |
| 6 | 13/02/11 | Tenant – private | 14 |
| 7 | 14/02/11 | Owner-occupier | 20 |
| 8 | 18/02/11 | Tenant – social housing | 17 |
| 9 | 01/03/11 | Owner-occupier | 12 |
| 10 | 21/06/11 | Owner-occupier | 26 |
| 11 | 22/06/11 | Owner-occupier | 38 |

In the Meadows, six interviews were arranged for me by the project organisers to coincide with a two-day site visit I made during February 2011. I was also provided with contact details and the location of each solar PV recipient in the Meadows. I visited every participating household in the program to door-knock and/or post a flyer through the letterbox with an interview request. This method of recruitment proved unsuccessful, with only one person responding. Considering seven households insufficient, I worked my way through the list of solar PV recipients, telephoning each household in turn asking if they were willing to be interviewed. When calling I identified myself as a researcher from the University of East Anglia working with the Meadows project organisers, and that the purpose of the call was to ask questions related to their involvement in the solar PV project. A further four householders agreed to be interviewed, resulting in a total of eleven households and thirteen individuals being interviewed in the Meadows (detailed in Table 3.8).

Muswell Hill interviewees came from a variety of sources including several members of the project steering group, along with a number who were recruited following an email from the project organisers that included a copy of my research

flyer requesting participants to contact me directly. In addition, two interviewees were recruited following an email I sent to the attendees of a focus group I attended as an observer. All interviewees had participated in the Green Homes Makeover program run as part of the LCZ initiative. I conducted a total of ten interviews with participants in the Muswell Hill LCZ project (detailed in Table 3.9), with the focus group providing both direct observation and secondary data in the form of the resulting transcript.

**Table 3.8 Details of Meadows interviewees**

| No. | Date | Tenure | Years in the Meadows |
|---|---|---|---|
| 1 | 24/02/11 | Owner-occupier | 40+ |
| 2/3 | 24/02/11 | Tenant – social housing (Couple interviewed) | <1 |
| 4 | 24/02/11 | Owner-occupier | 18 |
| 5 | 25/02/11 | Owner-occupier | 30+ |
| 6/7 | 25/02/11 | Tenant – social housing (Couple interviewed) | 18 |
| 8 | 25/02/11 | Owner-occupier | 18 |
| 9 | 12/03/11 | Owner-occupier | 1.5 |
| 10 | 20/06/11 | Owner-occupier | 71 |
| 11 | 20/06/11 | Owner-occupier | 7 |
| 12 | 20/06/11 | Tenant – social housing | 3 |
| 13 | 23/06/11 | Owner-occupier | 25 |

Interview protocols[6] varied according to the stakeholder group being interviewed. For example when interviewing those within DECC the role of community within policy was discussed, while community members were asked questions relating to why they had chosen to participate in the particular schemes and what changes, if any, they had made to their lifestyle as a result. Common to all interviewees was a series of questions relating directly to community, and in particular how they described what they perceived it to be and what it could do.

[6] Included as Appendix 4.

**Table 3.9 Details of Muswell Hill interviewees and focus group attendees**

| No. | Date | Tenure | Years in Muswell Hill |
|---|---|---|---|
| 1 | 29/06/11 | Owner-occupier | 50+ |
| 2 | 03/08/11 | Owner-occupier | 5 |
| 3 | 03/08/11 | Owner-occupier | 30+ |
| 4 | 04/08/11 | Tenant – private | 1.5 |
| 5 | 04/08/11 | Tenant – private | 5.5 |
| 6 | 17/08/11 | Owner-occupier | 10 |
| 7* | 26/08/11 | Owner-occupier | 22 |
| 8 | 27/08/11 | Owner-occupier | 3 |
| 9^ | 06/09/11 | Owner-occupier | 8 |
| 10 | 07/09/11 | Owner-occupier | Unrecorded |

**25/07/11 Focus Group Attendees**

| No. | Tenure | Years in Muswell Hill |
|---|---|---|
| 1 | Owner-occupier | Unrecorded |
| 2 | Tenant – private | Unrecorded |
| 3 | Owner-occupier | 26 |
| 4* | Owner-occupier | 22 |
| 5 | Owner-occupier | 6 |
| 6 | Owner-occupier | Unrecorded |
| 7 | Owner-occupier | 6 |
| 8^ | Owner-occupier | 8 |
| *^ Interviewees who also attended focus-group session. | | |

While ensuring that questions of central importance to the research were asked of all interviewees, I used Davies flexible approach to interviewing in which:

> 'researchers may alter the wording and order of these questions, perhaps omitting some that seem inappropriate; they may introduce new topics and supplementary questions not included on the list, and respondents are encouraged to expand on a response, or digress, or even go off the particular topic and introduce their own concerns.'
>
> (Davies 1999, p. 95)

At the start of each interview I discussed with the interviewee the purpose of my research and their role within it, verbally requesting their consent to continue. In

addition I provided each interviewee with a consent form[7] to sign to ensure that their participation was based on informed consent. Following each interview I either wrote notes or digitally recorded my initial reflections on how the interview had gone, making note of any questions that had appeared difficult or awkward to answer, any key points to emerge and a general summary of how the conversation had gone and any points I needed to be aware of for future interviews.

The interviews lasted between 25 and 90 minutes, with a mix of face-to-face and telephone interviews being conducted. They were digitally recorded and subsequently transcribed verbatim. The policy and practitioner stakeholder interviews tended to flow well, with each stakeholder group providing detailed and lengthy answers across each section of the interview protocol. This seemed to reflect their familiarity with the interview process as well as some of the more theoretical questions I was asking them to answer such as the rather blunt 'how would you define community?'. By contrast, the initial interviews I conducted with community members tended to ebb and flow, and in particular when it came to the questions on community. As a result I modified the protocol for community members to ask them to describe the area in which they lived. In nearly every case, interviewees would at some point mention the word community, giving me a chance to explore what they meant by their use of the term in that particular context. This proved a far more effective way of eliciting interviewees' views on the topic as their answers were directly grounded in their own experience.

An alternative explanation of the difficulties I encountered with some interviewees is the influence my conduct during the interviews may have had – the so-called 'interviewer effects' (Fielding and Thomas 2008, p. 255). I was conscious

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[7] Included as Appendix 5.

of the risk of this occurring, and therefore made efforts to avoid leading questions, misplaced 'Oh really's?' and overt expressions of my own opinions or theories regarding the research. I tried to keep the interviews as conversational in tone as possible, and made it clear to each interviewee across all the stakeholder groups that I really wanted to hear what they had to say, and not what they thought I wanted to hear.

In summary, my experience of conducting interviews for this research suggests that while 'the interview is becoming more and more commonplace, making it much more of a naturally occurring occasion for articulating experience' (Holstein and Gubrium 2003, p. 78) may be true for some individuals, it certainly is not true of them all. Whether interpreted as interviewer effects or power relations operating during the interview process (Charmaz 2006) it is clear that I had an impact on the resulting texts produced from them. However it is my belief that my interactions with the interviewees and involvement in co-producing the resulting data does not distort or bias my observations and the results I infer from them. This is because the epistemological position I have taken is one in which I am a co-producer of the data I am obtaining through my interactions with those participating in my research, which in turn represents one of many possible representations of the social world (Byrne 2004).

### *3.4 Analysis: trying to make sense of a mountain of data*

While the methods and analysis sections are being presented separately it would be an error to assume that they took place in the same way. Instead, data analysis was an iterative process that occurred throughout the course of the data gathering phase of this project. This was as much out of necessity as design as the ever increasing amounts of data I was gathering – eventually totalling fifty-one

interview transcripts, several hundred pages of documentation, nine notebooks of hastily scribbled thoughts and countless audio recordings of reflections and insights I worried would be forgotten if I didn't record them instantly – would have presented a truly daunting prospect for me to tackle in its entirety and then turn into a completed thesis. I therefore adopted a constructivist grounded theory approach to data analysis as outlined by Charmaz (2006), that in turn draws on earlier grounded theory texts (e.g. Glaser and Strauss 1967; Glaser 1978; Strauss 1987; Strauss and Corbin 1998).

Constructivist grounded theory 'places priority on the phenomena of study and sees both data and analysis as created from shared experiences and relationships with participants and other sources of data' (Charmaz 2006, p. 130). It differs from its objectivist, positivist alternative (e.g. Glaser and Strauss 1967; Glaser 1978, 1998, 2002) in its recognition of the socially constructed nature of data, as opposed to the objectivist tradition in which data represent objective facts about a knowable world. In addition, it recognises the role of sensitising concepts (Blumer 1969) in guiding research.

Sensitising concepts provide ideas drawn from existing theory and literature to guide the initial stages of research and act as 'points of departure' (Charmaz 2006, p. 17) from which to form particular kinds of questions and analyse the resulting data. In contrast, the positivist tradition aims to avoid preconceptions and suggests that 'All is data' (Glaser 2001, p. 141) to which the careful application of grounded theory methods will produce theoretical understanding. In this way, objectivist grounded theorists purport to act as a value-neutral 'conduit for the research process rather than a creator of it' (Charmaz 2006, p. 132).

In keeping with the *phronetic* approach to social enquiry that acts as an additional guide to my research, I make no claim to being value-neutral, nor that

what follows is an objective version of a 'real' world. Instead my prior understanding and interest in community and the governance of environmental change acted as sensitising concepts that shaped the research questions I asked, and how I went about the process of data collection and analysis (*cf.* Charmaz 2005, 2006) in order to construct what follows in Chapters 4, 5 and 6.

Philosophical considerations aside, constructivist and positivist grounded theory follow a similar approach to data analysis. Broadly, these are:

1. Coding data
2. Categorising the codes
3. Building theory

As noted earlier, these steps were not simply conducted at the end of the data collection process, but instead were part of an ongoing iterative process that began with my pilot interviews. While appearing formulaic, the actual process was anything but, particularly in light of the sheer volume of data that I had collected. For example, each interview and document was not subjected to a single round of analysis, but instead returned to several times to refine, reflect and focus the emerging themes.

Coding, the categorising of segments of data with a short name to identify emerging themes or ideas, generates the 'bones' of the analysis from which an analytical 'skeleton' is formed (Charmaz 2006, p. 45). Rather than imposing preconceived codes on the data, they are created by the researcher who defines what they see emerging from the data.

Coding is also an iterative process. Initial or open coding, the first step in the process, is paradoxically meant to be conducted quickly but also either line by line or

word by word. The aim of initial coding is to 'produce concepts that seem to fit the data' (Strauss 1987, p. 28). Initial codes are provisional, comparative, grounded in the data, and act as a guide for further analysis (Charmaz 2006). They are also, from my experience, numerous, even when using a sensitising concept such as community to guide analysis. I produced several dozen codes related to community including 'contested', 'divided' and 'policy actor' as part of my initial coding (see Fig 3.2). At this point I began to feel disconnected from data that had previously seemed to relate to my research quite closely. Yet the fragmenting and de-contextualising of data during initial coding is in fact the point. Seen in isolation the bones don't seem to fit; they simply represent ideas or themes to explore analytically. The next step in the process aims to draw them together into an analytical skeleton through focused coding.

Focused coding involves making a decision as to which are the most significant and/or frequent codes produced from initial coding. Having done so, another round of analysis is undertaken to categorise data according to these new codes (Charmaz 2006). Following the logic of grounded theory in which codes emerge from the data rather than simply reflect the researchers preconceived ideas, the most significant codes to emerge with relation to community were those that highlighted the contested nature of the concept. Perhaps naively, the contested nature of community came as something of a surprise to me. The initial coding I conducted using behaviour change as a sensitising concept also resulted in codes emerging that focussed on social dynamics, something else I had not originally anticipated. Yet as the purpose of coding is to remain as close to the data as possible the emergence of unexpected codes justified the grounded approach to data analysis I adopted in which I was open to such a situation arising.

| DECC | Blacon | Meadows | Haringey |
| --- | --- | --- | --- |
| A competition | belonging | a struggle | A distraction |
| Advocacy group | bounded | belonging | An area to be 'raised' - cf. Blacon/Meadows |
| Anything | doing | change moments | area |
| Black Box | for older people | closed | bounded |
| Conduit for commercial sector | giving back | commitment | Difficult to evaluate |
| Confused | Green spaces | competitive | Divided - re differing socio-economics of area |
| Constructed / shared by others | local | exclusive | Empathy |
| Contested | narrow | fragmented | Exclusive |
| Defined by others - e.g. the network of activists consulted for the APP form | neighbours | inconvenient | Fuzzy |
| Delivery mechanism | not about energy | limited | Generalisable to other areas |
| Differentiated | obligation | local delivery | Helping others |
| Fluffy | place | lost | Interest - MHSG |
| Identity based | pride | mistrust | Isolated pockets in a much bigger area - e.g. Hillfield Park cf. the Broadway |
| Invisible | rooted | neighbours | Life change - about being on maternity leave |
| Knowing people | self interest | not time constrained | limited in effectiveness - e.g. PV on M&S = 6 homes |
| Marginalised | sense | opportunity | Local |
| Narrow | serial volunteers | place | Lost |
| Network - everyone knew XXXXX | Statistical | rooted | Mavens |
| Not always a good thing | takes times | sense | Narrow - 3streets but only 2 engaged |
| Not core to DECC | time | socially bounded | Narrow - LCZ |
| Panacaea | time constrained | Statistical | Neighbours |
| Pioneers | trust | takes time | Networks |
| Policy actor | volunteering | trust | opportunity |
| Predefined | worth defending | volunteering | Overlaps |
| Prescriptive | | your street | Performance |
| Self-defining | | | pioneers / exemplars |
| Small scale / Limited | | | Policy actor |
| Social Movement | | | potential network |
| Statistical | | | practice |
| Takes time | | | Professional - as in MHSG |
| top down / bottom up | | | Risk - e.g. resources spent |
| Trust | | | Service Provider |
| Undefinable / not worth defining | | | Shared experience |
| Unproven - but needs to prove itself for DECC to take it seriously | | | Statistical |
| Weak / Strong | | | Superficial |
| | | | Transient |
| | | | Trusted |
| | | | Undermined by poor choice of partner - i.e. limitation on effectiveness of COMM as delivery mechanism |
| | | | volunteers |

**Figure 3.2 Results of initial coding by case sub-unit**

It was at this point in the data analysis process that variations on grounded theory and thematic narrative analysis (Riessman 2008) began to merge. I had

produced a series of focused codes that now represented themes to guide further data analysis. To help organise these into a grounded theory I wrote a number of theoretical memos, 'written explorations of ideas about the data, codes, categories or themes' (Eaves 2001, p. 659). They provided a means by which I could track the progress of my thinking about my research, along with recording emerging themes and their linkages. Reading them helped refine my research, and provided the necessary clarity that was sometimes lost when I was immersed in data analysis. In addition, I used a whiteboard to sketch diagrams of the relationship between various categories and variables (see Fig 3.3). This provided a visual representation of the linkages between themes that I was exploring, and was a useful way of testing the strength of the relationships between them. I could easily sketch, and then re-sketch the relationships until I found one that I felt represented accurately what had emerged from my data analysis.

**Figure 3.3 Diagrammatic interpretation of emerging themes**

Having finalised the key themes that emerged from the data analysis and ordered them into the case narrative the task of writing up began. As Strauss's notes,

'the researcher's will not be the only possible interpretation of the data [...] but it will be plausible, useful and allow its own further elaboration and verification' (Strauss 1997, p. 11). In a similar line, Denzin and Lincoln (2011, p. 14) note that 'Qualitative research is endlessly creative and interpretive. The researcher does not just leave the field with mountains of empirical materials and easily write up his or her findings. Qualitative interpretations are constructed'. My aim in constructing the interpretations which follow was not only to answer the research questions I posed, but to remain true to the goals of a *phronetic* approach to social enquiry. Through 'the force of example' (Flyvbjerg 2006, p. 228) I hope to present a case study that while firmly rooted in a particular context, has theorized connections that go beyond the case itself to provide at least a partial answer to the first value rational question posed by Flyvbjerg of 'where are we going?' (Flyvbjerg 2001, p. 60).

### 3.5 Ethical considerations

This thesis is a qualitative study reliant on observations and conversations with people as its principal sources of data, and as such ethical considerations must be addressed (Guilleman and Gillam 2004). As a starting point, my fieldwork was conducted according to the University of East Anglia (UEA) Research Ethics Framework in which particular attention to issues of informed consent, assurances of anonymity, access to information and security of data storage must be paid. The regulatory aspect of this involved the UEA Research Ethics Committee approving an outline research description detailing my proposed methodology and how I would address the ethical issues it raised. I shall now describe the practical steps taken during my fieldwork to ensure those issues were addressed, before concluding with a brief discussion of the self-regulation I conducted throughout my research.

### 3.5.1 Ethics in semi-structured interviews

As mentioned in Section 3.3.3, at the start of each interview I discussed with the interviewee (or in a few cases interviewees) the purpose of my research and their role within it, assured them of their anonymity, and requested both verbal and written consent to continue. Written consent was obtained via a consent form[8] that also contained information relating to data storage and access to information for the interviewee. None of the interviewees declined to be interviewed having heard the purpose of my research or read the consent form. I offered each interviewee the option of receiving a transcript of the interview for their approval, an offer which they all declined.

Due to the nature of my research topic, maintaining the anonymity of the government department and the policy-experiment it was running was problematic to the point of impossible. Therefore an issue arose during the course of my research regarding how to maintain the anonymity of certain interviewees. While any quotes attributed to them would of course be anonymous, anyone with a reasonable knowledge of the LCCC would have been able to speculate as to their identity without too much effort. To address this, I contacted those interviewees to highlight this concern and request their continued consent, which each of them granted. I also chose to rewrite certain sections of the thesis in order to reduce the likelihood of the identity of the interviewee being revealed.

### 3.5.2 Ethics in direct and participant observations

The key ethical issues to arise from direct and participant observations are consent and anonymity. To address this I was open about my role as a researcher from the outset with whomever I met. This was true whether wandering the streets of the Meadows and stopping someone to ask their opinion of the solar panels installed

[8] Included as Appendix 5.

as part of the project there, or when being introduced to the Muswell Hill LCZ steering group for the first time.

Gaining consent from the steering group was clearly a more straightforward affair as I took some time to explain my research to them, and was quite clear that if any member felt uncomfortable about my presence I would leave. My involvement with the steering group spanned well over a year, so it is possible that their consent could have shifted or been withdrawn during that time. However the reverse appeared to happen as I was invited to participate more fully in their discussions. I was wary of my shifting positionality and the potential ethical implications of this so renegotiated consent with the steering group and clarified my position with my supervisors.

None of the individuals I spoke with during site visits to Blacon, the Meadows or Muswell Hill feature in any identifiable way in my thesis. The same is true of the conversations held with attendees at the numerous workshops, conferences and evaluation meetings I attended throughout my research. Any reference to them in my thesis appears as anecdotal background stories only, and I am satisfied that in my interactions with them I have exercised the appropriate levels of discretion and maintained appropriate ethical standards.

### 3.5.3 Governmentality and *Phronesis* in research ethics

Any construction of ethics in research represents a form of governance, and can be seen as a form of governmentality (Foucault 1978). They may be institutionalised as in the case of the UEA Research Ethics Framework detailed above, or based on emergent, flexible or well-honed belief structures that serve as forms of discipline and regulation of the self (Cannella and Lincoln 2011).

The *phronetic* approach to social science adopted for this research served as my self-regulatory mechanism. The four value rational questions, along with the nine methodological guidelines that inform a *phronetic* approach to social science outlined in Section 3.1 are designed to ensure that the researcher is constantly aware of their positionality in the research.

Of particular importance in this respect is avoiding an imbalance of power relations in which the researcher is constructed as the expert seeking to draw truths from the subjects of his or her research (Cannella and Lincoln 2011). It was not a claim I made of myself and not, I hope, one that I unwittingly adopted during the course of my research.

I was constantly aware of the co-produced nature of my research, in which participants and I were actively involved in the construction of my 'data set'. As such I made efforts to allow them to shape my research and share the resulting knowledge, and employed a number of methods to do so. For example I asked community practitioners for any questions they would like me to ask the participants in their projects, and provided an opportunity at the end of each interview for interviewees to make any final comments or to ask me questions related to any aspect of my research. I offered to send copies of interview transcripts and draft chapters, and participated in several knowledge exchange seminars with practitioners. In short, I attempted to maintain an ongoing dialogue with my research participants to ensure my research retained its relevance to them.

I accept that the resulting knowledge produced is a partial account based on my version of events; however I have endeavoured to ensure that what follows is an honest representation of events that is true to the ethical considerations that guided my research.

# Chapter 4 The Multiplicity of Community in the LCCC

In line with Hillery's much cited paper (1955) in which he identified 95 definitions of community, over forty emerged from the interview analysis I conducted for this research. These ranged from 'anything' to 'unproven', 'undefinable' and even 'not worth defining', and is perhaps not surprising considering the ubiquity of the term both within the LCCC itself and the wider world. This chapter presents the results of that analysis in order to answer the first research question this thesis addresses: within the contexts of efforts to use community as a means of encouraging positive environmental change, what does community mean? It will show that within the LCCC community was a multi-faceted concept subject to contested understandings regarding both what it was and what it could do. In particular, it will show that despite officials and experts associated with the LCCC acknowledging the multiplicity of community it was applied in a narrow, instrumental manner that conformed to DECC's understanding of its role as a delivery mechanism for a policy agenda based on energy generation and carbon accounting. The chapter will progress to show how applicants to the LCCC were required to present a front that conformed to that understanding in order to gain funding, before going on to discuss in detail how the evaluation of the LCCC served to further reduce the multiplicity of community. The final sections of the chapter discuss the normative understanding of community held by practitioners and participants based on identification with their local neighbourhood or area.

The chapter offers a largely descriptive account of how stakeholders in the LCCC understand and apply community. This is an essential step in the progression of this thesis as it serves to highlight the important distinction between instrumental and normative understandings of community held by different LCCC stakeholders,

which in turn provides context to the analysis of the Blacon, Meadows and Muswell Hill projects that is the focus of Chapter 5.

## *4.1 DECC on community: recognising the multiplicity*

As noted in the Introduction, the origins of the LCCC were in the Big Energy Shift (BES), a large-scale public dialogue program designed to identify barriers and opportunities across a range of public and private sectors to wide scale uptake of renewable energy technologies. The BES findings suggested the potential benefits of the active participation of citizens in creating and delivering community-based solutions to a perceived energy problem. From these findings the idea emerged for the LCCC to act as a 'test-bed' to:

> 'help government, local communities and a range of parties involved in the UK transition to greener, low carbon living understand how best to deliver this transition at community level.'
>
> (DECC 2009, p. 1)

In order to test the hypothesis, the LCCC planned to engage with:

> 'a broad section of people living and working in communities to develop plans for their area that integrate technology or infrastructure – such as wind farms, electric cars or home energy refurbishments – with financial and behavioural measures to create a broader low carbon area or 'zone'.'
>
> (DECC 2009, p. 1)

From its inception there appeared an intention for the LCCC to be an inclusive, participatory process capable of engaging 'a broad section of people'; suggesting that it would mirror the BES by actively involving citizens in decision making. However the LCCC also equated community with an area that would be capable of acting as a delivery mechanism for material and social change. This

interpretation of community as both an active participatory process but one bound by a physically defined area was explained by one of the LCCC's organisers as follows: 'I think that was just too much for my head to try and translate that into communities of interest, or something like that, you know?' (DECC Official).

The quote raises some interesting questions as to *why* it was so difficult to translate the findings from the BES. The interviewee, in common with most other people associated with the LCCC interviewed for this research, was more than capable of articulating a range of different definitions and interpretations of community, and spoke of her 'strong faith' in community based on her own experience of living somewhere where she felt a sense of community existed.

It transpired that her own faith in community was based on a geographical location – where she lived – but interpreted as an emotional response to it as a place (Leach 2002; Creswell 2004). So, despite having a clear idea of what community was and its potential for generating positive social and environmental change, translating that 'sense' into a less abstract definition that could be operationalised within a government department proved 'too much for her head'. This could explain in part her retreat into geographical interpretations of community around which definitional boundaries are easier to draw; however it also raised the question of how others officials involved with the LCCC within DECC understood community. When questioned on this point as part of the interview process a number of them described the difficulty of providing a concise definition, acknowledging the contested and multiple nature of community. Reflecting on this, one interviewee noted that community: 'can mean, well, does mean everything to every... anything to everybody or nothing to anybody, depending on who you talk to.' (DECC Official)

The multiplicity of community is clear in the above quote, but also suggests that certain voices may be privileged in shaping how it comes to be understood. In particular, it suggests that within a government department the task of deciding where a community's boundaries lie may not be with the purported members of that community, but rather with officials (*cf.* Giddens 1998).

### 4.1.1 What can community do for DECC?

The tensions inherent within the concept of community and the range of interpretations that can be applied to it were described as leading to a 'number of battles' (DECC Official) between ministers, policy officials and civil servants within DECC over both what community is and what it can do:

> 'Ministers are saying we want more community owned renewables, policy officials, how will you do this? Policy officials are saying that's fine but in order to do community-owned renewables you're talking about a small scale, you know, micro-generation type things, certainly not on the scale we need to meet our target, therefore community-owned equals slowing down our ability to meet our targets.'
>
> (DECC Official)

Ministers within DECC perceived community initiatives to be worth encouraging, yet of a sufficiently small scale as to detract from the departmental goals of meeting carbon reduction and energy generating targets. Reconciling this difference of understanding and purpose was recognised by a number of interviewees as being the challenge that community had to meet within DECC:

> 'They *[policy officials]* get community in a sense that it's relatively fluffy and nice and a good thing to do, there are associate benefits beyond the environment, social benefits, economic benefits, but fundamentally they're in the business of how many wind turbines, how many power plants, big kind of, you know, megawatts and tonnes of carbon. So unless we can demonstrate that to them in their kind of framing, then they won't be interested.'
>
> (DECC Official)

So despite being a ‘good thing to do’, community faced the challenge of making itself relevant to DECC’s policy goals, something that at the inception of the LCCC it had not been able to achieve:

> ‘So if you take our three principal goals of sort of keeping the lights on, securing or maintaining prices and protecting the vulnerable and the then... and the third one delivering the renewables, it doesn't really fit... community doesn't really fit under any of them, although it really fits under all of them to some degree and so it's been, and it still is, I guess, at a point where nobody is a 100% convinced that community energy is an energy goal as opposed to a community goal.’
>
> (DECC Official)

Community was therefore an actor within a much wider institutional policy arena in which its purpose was unclear, and with the absence of climate change from the list of DECC’s principal goals in the above quote, perhaps DECC’s own purpose was unclear to some officials. Yet regardless of what role community may play in tackling climate change, it was tasked with conforming to DECC’s understanding of its role:

> ‘The challenge that I keep issuing or have issued at a number of events to communities is to make themselves relevant to those, those DECC priorities and not just to the social priorities.’
>
> (DECC Official)

Throughout a number of interviews with DECC officials that priority was repeatedly referred to as being energy: either generating or saving through efficiency measures. As one interviewee rather bluntly described it: ‘It doesn’t matter who, it matters what’ (DECC Official).

Summarising these points, despite every DECC policy official and expert network interviewee recognising the multiplicity of community it was reduced to proving itself relevant to DECC's priorities of meeting energy generation and carbon reduction targets. In other words, there was a clear distinction between DECC officials understanding of community in comparison to DECC's official understanding. In order to operationalise community within the LCCC, its multiplicity of community was removed, and replaced by a narrow, instrumental understanding of community as a geographical area and delivery mechanism for policy-goals. Other than 'protecting the vulnerable' any wider social benefits were of limited interest to DECC officials as they were not the direct focus of their departmental policy goals. Community was also seen as being small scale and not capable of generating carbon savings or energy production on a scale relevant to DECC's goals. Finally, it was considered unproven, and therefore tasked with showing its relevance to DECC based on DECC's understanding of what community is and what it should be doing.

What is clear from the description presented of DECC's official view of community is that it contrasts strongly with those of one of the originators of the LCCC quoted at the start of this chapter. The aim of those responsible for introducing the LCCC was therefore to provide some measure of proof of the relevance of community to DECC's policy goals, while maintaining aspects of their own normative understanding of its potential in achieving positive environmental and social change.

### *4.2 Reducing the multiplicity I: The LCCC application form*

As shown in the previous section, and supporting the arguments made in Section 2.2 of the literature review, providing a concise definition of community is problematic. While some interviewees within DECC attempted to, others avoided the challenge altogether:

> 'I wouldn't even like to attempt it *[define community]* because it's so varied and in a sense the communities define themselves in the way that they applied for this *[the LCCC]*.'
>
> (DECC Official)

However as this section will show, the way communities defined themselves in the LCCC was shaped by the way the application form constructed both what a low carbon community is and what it could do. The LCCC application form was created based on discussions between officials within DECC, academics, and advisors from community-based civil society organisations active on climate change issues such as the Transition Network[9] and the Ashden Awards[10]. These discussions led to the creation of an application and selection process that tried to capture some of the sense of community described by the LCCC organisers, while also attempting to ensure that the successful applicants were capable of making themselves relevant to DECC's policy goals. It mixed normative understandings of community based on the idea of it as a social process with the instrumental understandings of community as a policy actor.

The evolution of the application form was described by a DECC Official as follows:

---

[9] Visit http://www.transitionnetwork.org/ for more information.
[10] Visit http://www.ashden.org/ for more information.

> *Respondent*: I just said track changes. [LAUGHS] I wasn't able to see it clearly after a while. So they... you know, they would kind of make it theirs a bit...
>
> *Interviewer*: The application form was shaped by different community groups?
>
> *Respondent*: By people who had a strong understanding of the community sector.

While recognising that 'no one size fits all communities' (DECC 2009, p. 3) the LCCC application form provided thirteen pages of detailed guidance notes on how applicants should structure their response to meet the selection criteria. Responding to requests from potential applicants for further clarification around certain issues relating to the application, an additional 'Questions and Answers' document was posted on the DECC website. It included clarification on a question central to the challenge:

> **4. What is the definition of a community?**
> We have asked applicants to define the size of the community they propose to work with. We have given guidance - resident populations numbering from 1,000 to 20,000. This is guidance only and we invite applicants to put forward propositions involving larger or smaller numbers of residents if they can demonstrate that the objectives of the Challenge can still be met. The applicant will need to have a convincing case that the scale of community identified is sufficiently large to test replicable delivery models and governance structures, and create a 'buzz' outside the immediate area, while also fostering community leadership.
>
> (DECC 2011, p. 2)

The application form also provided percentage weightings by which each section of the application would be judged (shown in Table. 4.1).

**Table 4.1 LCCC application criteria and weightings (adapted from DECC 2009)**

| Criteria | % weighting |
|---|---|
| Overall ability to deliver community-wide plans for the area and meet the objectives of the Challenge | 30 |
| Delivering integrated approaches | 10 |
| Build on and bring together learning, skills and resources | 10 |
| Recognise communities as places | 10 |
| Foster community leadership, involvement and partnerships | 10 |
| Willingness to learn and capacity to quantify impacts | 10 |
| Be replicable | 10 |
| Be equitable and sustainable | 10 |

The guidance notes and supplementary information such as the Questions and Answers page led to quite specific descriptions of community by applicants to the LCCC – both successful and unsuccessful – as they structured their applications to fit the pre-defined guidance provided to them. In doing so they bound their community around an imposed set of selection criteria by which their application would be (pre)judged. For example applicants were required to detail how their projects would 'draw on evidence from research and best practice to show how it builds on 'tried and tested' approaches, and secondly 'The applicant has the capacity to quantify the impact of the project on carbon reductions, energy use or other sustainability benefits' (DECC 2009, p. 8).

Implicit within these guidance notes is a pre-figuring of the problem and its solution based on the work of experts. Firstly in the form of those who have devised 'tried and tested' (DECC 2009, p. 8) approaches, and secondly in requiring that applicants possess the expertise to quantify the impact of such approaches on carbon emission reductions in their projects. The opportunity for innovation was limited

from the outset by the requirement to conform to pre-existing approaches, while the principal goal of quantifying change limited the evaluation options for applicants.

An additional guidance note required that 'the applicant understands the social and economic potential of integrated approaches, e.g. as a means of tackling fuel poverty' (DECC 2009, p. 9). In this way, a category of citizen with an attendant set of needs was called into being around the identifier 'fuel poverty', requiring a certain type of practice based on tried and tested methods be described in order to address it (*cf.* Cruikshank 1999). It sent a clear signal to applicants as to how to structure their projects if they were to be successful, and further reduced the type of communities that would be able to participate in the LCCC.

Eleven of the twenty-two successful applicants to the LCCC focused their projects on tackling fuel poverty (DECC 2011) including the Meadows and Sustainable Blacon projects that form two of the embedded units within my case study.

It is not my intention to downplay the consequences of living in fuel-poverty, nor the worthiness of efforts to address it; instead, my purpose is to highlight the way in which the LCCC tightly controlled the type of community projects that could gain funding by setting clear guidelines as to how applicants should structure their project. It is another example of how the multiplicity of community was reduced in order to construct it in such a way as to conform to DECC's understanding of what it is and what it can do.

### 4.2.1 Responding to the application

The application guidance notes and selection criteria indicated clearly a series of understandings of both what a low carbon community should be and what it should do. Several community practitioner interviewees noted how these provided

strong indicators around how to structure a successful application to the LCCC. Reflecting on the application process, one practitioner observed:

> '…looking at the criteria for the funding bid it focussed on kind of innovation, partnership building and it kind of seemed to be hinting towards, you know, the stronger the community relationships around the project the more likely it is to succeed and more likely it is to receive funding. So initially it was probably more a case of designing a project that met the requirements of the funders, which was aided by the fact that there was a very active community group that were involved in it as well.'
>
> (Community Practitioner)

As the quote indicates, in order to be successful in the application process community played the role asked of it. Across all of the application forms analysed for this research evidence of applicants replicating the language of the application form in their responses was present. For example the guidance:

> **Recognise Communities As Places**
> 'Success [in the application process] means viewing communities as places, both virtual and physical, rather than simply as a collection of localities and buildings. It means recognising that people who live or work in the area are likely to identify with it emotionally. This sense of identification influences how they respond to decisions that might impact on the area. It also means recognising that public spaces – parks, high streets, community buildings – play a particularly important role in creating a sense of community and identity.'
>
> (DECC 2009, p. 11)

Produced the response:

> 'The Meadows is a very clear defined geographical area that is bound by the river Trent at the southern edge and the city centre ring road to the north. Residents of the Meadows have a strong sense of identity…A Pride in the Meadows initiative was instigated through the Meadows Partnership Trust in 2005 and has successfully started to engender pride in the area, some of this through the greening of streets and public places.'
>
> (MPT 2009)

And the guidance:

> **Deliver integrated approaches**
> Emissions will need to be cut across a mix of building types and tenures, but also the wider spaces and places in the built environment. We are keen to work with and build on such approaches which address recognised environmental and social needs of the communities. Please explain how you will do this.
>
> (DECC 2009, p. 11)

Produced the response:

> 'The recognised environmental and social needs of the community include an introduction of focal points to engage the entire community irrespective of previous interest. Addressing household energy usage, in order to reduce both carbon emissions and energy bills for residents, has also been highlighted. Both of these needs will be met through plans for Muswell Hill, by gaining exemplar beacon status at the schools and church, provision of a mobile zero-carbon LivingArk Carbon to showcase sustainable living, and through home audits with a whole-house retro-fit scheme. Public consultation for Muswell Hill will take place in December 2009 and January 2010, whereby residents will be able to give input and shape the projects taking place in the area.'
>
> (Haringey Council 2009)

During the course of my research I made several visits to the Meadows. Each time I was struck by the number of 'Pride in the Meadows' stickers I saw in the window of houses in the area, along with neatly kept hanging baskets and benches outside a number of houses creating an image of people sat in the sunshine admiring the flowers and greeting whoever should walk by. On that basis, the claims made in the Meadows application regarding the engendering of pride in the area may well represent accurately how residents perceive their area. Similarly, the introduction of focal points in Muswell Hill to engage 'the entire community irrespective of previous interest' may be addressing a recognised need of the local area.

The key point is not the degree to which the applications reflected accurately the areas they were describing, but rather the extent to which the way they described it was pre-defined as part of the application process. For example, while the Meadows was referred to as a single entity in the LCCC application, it was regularly described as divided between 'old' and 'new' during interviews by both practitioners and residents alike. One Meadows community practitioner described the area as follows:

> 'The Old Meadows is sort of the strongest and they, you know, they get involved and they get things done. Any problems, you know, they'll sort out. It's got quite a good spirit of community up there but down here in the New Meadows and coz of the layout of the housing and the type of housing we have a lot of transience here.'
>
> (Community Practitioner)

For the purposes of the LCCC application, each community was described as being homogeneous, if not necessarily interested as in the Muswell Hill example above. Yet when asked to describe their community as part of the interview process, the boundaries and divisions within the respective areas were openly acknowledged by practitioners. For applicants to the LCCC, community can therefore be interpreted as the presentation of a front (Goffman 1959); one designed to win a competition for up to £500,000 funding. Yet presenting a front reflecting the understanding of community held by the selection panel was central to applicants' chances of success:

> 'So part of the application process really had been they had to show us that they had generated… you know, got the community on board in one way or another, that was part of their scoring. But also just the way they described the community, because if they seemed to understand their community and talked about it, when I was scoring it had a big effect on me if they seemed to know the people who lived there.'
>
> (DECC Official)

In summary, this section has shown success in the application process relied on adhering to the guidance notes provided by DECC irrespective of whether it matched the reality of the community being described. It is another example of how the multiplicity of community was reduced in order to conform to a particular understanding held by organisers of the LCCC and other officials within DECC. It draws attention to the need to adhere to Walker's (2011) call to be open to a more problematic reality of community, in particular as a result of the normative rhetoric of community present in much of the literature (e.g. Allen *et al.* 2012) that accepts the existence of community at face value without questioning *how* or in what ways it came to be constituted in a particular form.

### 4.2.2 Reappropriating community

Despite being bound by the criteria set down in the guidance notes, the 'ways of operating' (de Certeau 1984, p. 14) in which practitioners described their community can be interpreted as an attempt to reappropriate the space created for them by the LCCC. Following Goffman (1959, 1963), if there is a 'front' being performed for a particular audience, it follows that there is a less visible 'back' that is shielded from view or performed at other times in more appropriate settings. In this sense, the 'reality' of the community in question is less important than the way it was presented for the purposes of gaining funding. This analysis rings at least partially true based on the quotes from the practitioner interviews in the preceding section in which they describe shaping their application to meet the selection criteria, together with acknowledging the presence of multiple and divided communities within a geographically bound area.

Another consequence of the application process arose after the awarding of funding. This was the questioning of the extent to which several successful

applicants represented the community on whose behalf they were applying. This questioning of the representativeness of the winning applicants arose when they were asked by the LCCC organisers to produce an engagement plan for their projects. One DECC Official described what happened as follows:

> *Respondent*: There was a resistance to having to engage beyond their immediate group, despite the fact that they would have had to prove some level of engagement in order to have scored highly, but to do so in practice they might have felt they would be slowed down in their delivery.
>
> *Interviewer*: Okay, so the way you describe that suggests there's a group of people within the community who are doing work to the community…
>
> *Respondent*: Absolutely, absolutely.
>
> *Interviewer*: So that deliberative process that you spoke about from the Big Energy Shift is that not necessarily being enacted?
>
> *Respondent*: No. We found others that were very, very top-down and in fact have been in conflict with the community. So there's a strong distinction between the community lead and that, wider geographical community. But I think we … I was going to say I think we anticipated that… I didn't anticipate that at all.

So despite the fact they had to 'prove' some level of engagement with the community as part of the application process, and subsequently satisfied the selection panel and on-site assessors who visited each short-listed application that they were doing so; they resisted attempts to force them to do so once they had received funding. What was most interesting about the exchange above is that the interviewee 'didn't anticipate that at all'. Her lack of anticipation would seem to have been based on her own understanding of the nature of how community should function as a collaborative social project, rather than as a top-down instrumental tool for policy delivery. The quote highlights further how the application and selection processes shaped the community projects that received funding in such a way as to ignore the

tensions, divisions and conflicts that came to light once some of the projects began. It indicates that despite the best efforts of the LCCC to shape what a low carbon community is and what it can do, it proved more problematic to enforce than the originators anticipated. Their efforts to reduce the multiplicity of community may have simply masked them. These are important points to highlight as they once again show that community is a far more complex concept than current understandings within the literature on the governance of environmental change articulate.

Resistance to the institutional understanding within DECC of what community is and what it can do was not confined solely to applicants. The awarding of funding to Lammas – an eco-village in Pembrokeshire in Wales with a population of around forty was described as 'particularly controversial' (DECC Official) within DECC. This was in part because they were considered by some officials to be isolated within the wider community – understood in this case to be a geographically bound entity; and by others as not a community at all – understood in this case as not meeting a minimum required population size on which to conduct comparative statistical analysis. How these apparent limitations in Lammas' application were overcome was described as follows:

> 'So they *[shortlisted applicants]* were all visited by BRE[11] who came out with a sparkle in their eyes about Lammas, so that helped. We wanted to tell a good story and we wanted people who could. So I said if you go to any of these communities and you are just, you know, feel depressed, they're probably not a good idea, and they came back with a sparkle in their eyes. And I think with Lammas the argument was that they were trying something so radically new, that we should just be aware of it, you know.'
>
> (DECC Official)

[11] BRE were the external consultancy appointed to evaluate short-listed LCCC applicants. Visit www.bre.co.uk for more details.

The extent to which Lammas was in fact trying something so radically new is open to debate; however the key point is that they were granted funding despite appearing to not draw on the tried and tested methods required of them, and were therefore beyond the tightly controlled boundaries of the LCCC.

In summary, this section has shown how the LCCC application and selection process attempted to reduce the multiplicity of community in order for it to conform to DECC's understanding of both what a low carbon community is and what it can do. However it has also shown this presented an opportunity for applicants to present a front that matched DECC's understanding of community in order to gain funding, irrespective of the extent to which they did or did not represent 'the community'. While the awarding of funding to Lammas could be considered as presenting a challenge to this analysis, the following section will show how the controversial nature of its funding award, together with the way it was viewed by officials within DECC suggests that it was an anomaly rather than an attempt to understand the 'radically new'.

## *4.3 Reducing the multiplicity II: DECC's evaluation of the LCCC*

This section provides details of the evaluation DECC undertook of the LCCC in order to 'ensure consistency and enable robust 'like with like' comparisons' (DECC 2011a, p. 4) across the twenty-two LCCC communities. This was achieved through the application of evaluation methodologies that, I will argue, removed the ability of the LCCC to measure the effects of the very thing it had set out to test – community – as a result of the focus on quantifying change.

### 4.3.1 The five evaluation strands

DECC outlined four common characteristics between the twenty-two funded LCCC projects. These were:

- The projects are geographically targeted, **area-based** initiatives
- They involve **integrated packages** that provide a more joined up offering to householders
- They are testing **different models of community-scale delivery**, from projects which are led/ inspired by community groups through to other projects which involve existing agencies (e.g. local authorities, energy utilities) delivering their services in a geographically-targeted way.
- The approaches draw upon **sociological models of behaviour** that emphasis the potential for social norms to nudge and trigger widespread, community-wide behaviour change

(DECC 2011a, p. 3 emphasis in original)

A number of observations can be made regarding these characteristics. First, the equating of community to a geographical area is clear. Second, the extent to which the approaches adopted by the LCCC projects draw upon sociological models of behaviour is at best questionable, as the language of social norms and nudge belongs to that of social psychology and behavioural economics (e.g. Thaler and Sunstein 2008) rather than that of sociology. Finally, a commonality between the twenty-two projects being that they are different raises questions from the outset as to the degree of consistent 'like with like' comparisons that are possible. However in an attempt to do so a five strand evaluation program (see Table 4.2) was developed to answer a series of questions relevant to DECC's policy objectives (see Table 4.3); the aim of which was to 'capture key learning and support the development of DECC's Consumer Insight evidence base' (DECC 2011, p. 4).

### 4.3.2 Numbers count

Of the five evaluation strands, only one – Strand 2 - directly engaged community members in the evaluation process as householders for whom values, attitudes and behaviours were assessed via what was described as a 'classic consumer survey' (Expert Network).

**Table 4.2 The five evaluation strands of the LCCC (DECC 2011)**

| Strand | Objectives |
|---|---|
| **1: Energy Consumption Data & Carbon Saving Potential** | Through the meter point energy consumption data that DECC now holds, via the energy utilities, this strand involves establishing a baseline/historical trends based on actual consumption in each of the LCCC communities. Furthermore, the carbon saving potential of installed measures across the LCCC will, as standard, be calculated. |
| **2: The Householder Experience** | This strand involves two pieces of research: (a) a survey of c.200-300 households in each area, 'before' and 'after' the local initiatives; and (b) a series of qualitative case studies with individual households, reported back via in-depth interviews, film footage and regular blogs. The household survey - measuring attitudes, values and behaviours - will also be accompanied by a self completion carbon footprint calculator to assess the impact on wider carbon-related behaviours |
| **3: The Community Practitioner Experience** | Each project has an independent facilitator who, via three local meetings across the Challenge, will identify and feedback on successes, challenges and barriers. They will also enable a process of co-inquiry to help shape the projects' evolution and strategies for engaging the wider community. |
| **4: Social Enterprise Action Research** | A number of the communities are receiving support to set up as social enterprises, as a result of funding from the Office of Civil Society's Social Enterprise Action Research programme. The lessons learnt from this process will be fed into the evaluation programme. |
| **5: Programme Evaluation** | This strand is focused on process and the way in which the Challenge was administered, with a particular emphasis on the Sciencewise-funded Community Practitioner Experience Strand. |

The survey was conducted prior to the commencement of the LCCC projects in order to act as a baseline, and was intended to be repeated after the nominal end date of the LCCC of February 2012 to measure change against the original results. The initial survey was conducted in seventeen LCCC areas, along with five

comparison areas chosen by DECC on the basis that they matched as closely as possible the size and demographic profile of proximate LCCC areas. The survey was repeated in fourteen areas towards the end of the LCCC. In addition, approximately two-thousand people were surveyed nationally (i.e. not specifically in an LCCC area) at the same time.

**Table 4.3 The 'key questions' of the LCCC (Adapted from DECC 2011 emphasis in original)**

| Question | Evaluation strand |
|---|---|
| Does community-led delivery **drive broad take up of low carbon technologies & lifestyles?** And what enabled wider take-up? e.g. by technology, intervention, leadership etc | 1, 2 & 3 |
| Does it change people's **attitudes & beliefs** in relation to larger energy solutions? | 2 |
| Are community-led solutions **scaleable and replicable** and, if yes, what are the key components for any blueprint. | 3 |
| Do they enable **joined up and integrated deploymen**t of Government's policies and programmes | 3 & 5 |
| If yes, what does this mean for Government's **overall approach** to the low carbon delivery landscape? | All strands |
| How can community-led delivery be supported & sustained? **finance mechanisms, governance structures, community involvement and ownership models** | 3 & 4 |
| What are the wider **environmental, social and economic impacts** of community-led delivery? | 2 & 3 |
| Did the LCCC – as a programme – **create a buzz/stimulate delivery** beyond the 22 LCCC winners? What levers/influencers prompted this? | 5 |
| What are the implications of the LCCC to future **action learning/ collaborative research programmes**? | All strands |

The survey asked a range of questions under headings relating to attitudes to the local area, energy use in the home, environmental attitudes and awareness (in

which climate change was included), environmental and energy behaviours, local energy infrastructure, personal engagement with local energy efficiency initiatives and socio-demographics.

Survey results were sent to community practitioners organising each LCCC project, as well as being collated in the LCCC Interim Report to allow comparisons to be made between projects. The LCCC Interim Report, published as a mid-project progress report, described the process and rationale for the survey:

> 'A face-to-face, in-home survey was conducted with samples of residents in each LCCC area, using a random location quota sampling approach, between March and June 2010. The survey therefore targeted *all households* living in the LCCC areas, not just those directly benefitting from LCCC measures like energy efficiency improvements. It therefore allows us to test the *community-level impacts* of the LCCC, not just household level impacts.'
>
> (DECC 2011b, p. 14 emphasis in original)

The equating of community to area is clear in the rationale for the survey; however as outlined in Section 4.2, community practitioners acknowledged the narrow reach of their projects within the wider geographical areas in which they were situated. Based on a geographical interpretation of community the 'community-level impacts' may well be limited in an area of roughly 5,000 households such as Blacon as the 'before' and 'after' surveys may well be conducted with people who either did not participate or had never heard of the project. As a result, the ability of the survey to contribute evidence of the relevance of community to DECC's policy priorities was undermined from the outset of the LCCC evaluation process.

One factor the survey was trying to measure was the extent to which 'reducing your carbon footprint' was considered 'normal' in each LCCC area (see Fig. 4.1).

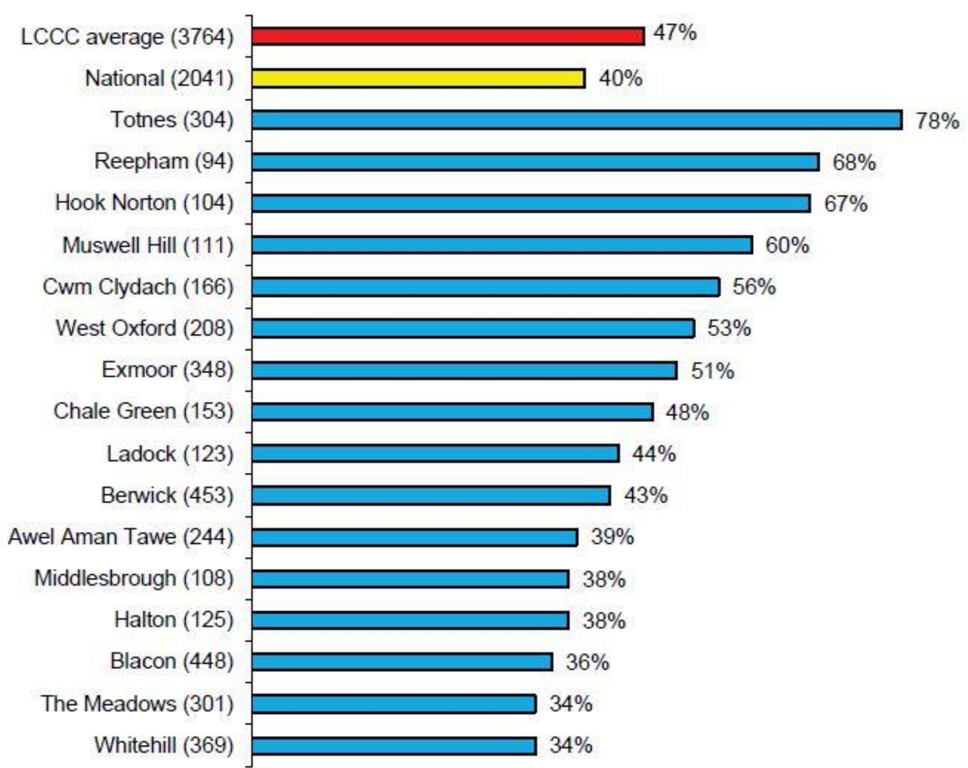


**Figure 4.1 Sample question from baseline survey: % who 'strongly' or 'tend to' agree that 'in their area trying to reduce their carbon footprint is the 'normal' thing to do' (DECC 2011b, p. 15)**

Interpreting the responses to this question, the interim report stated:

> 'Exploring existing **social norms** around low carbon behaviour prior to LCCC interventions in each area, it is evident that a slightly higher proportion of residents in LCCC communities - as a whole – believe that efforts to reduce their carbon footprint is the 'normal' thing to do in their area than is the case nationally (47% vs. 40%). However, this overall LCCC result masks significant variations across individual communities - low carbon social norms appear much more embedded in Totnes (78%), Reepham (68%) and Hook Norton (67%) than they are in Blacon (36%), The Meadows (34%) or Whitehill Borden (34%).'
>
> (DECC 2011b, p. 15-16 emphasis in original)

The question and resulting answer present more questions of their own. For example, what is the source of respondents' belief that reducing their carbon footprint is 'normal'? How do they know? Are they making assumptions about what

other people might do, or have they had those conversations with them? Similarly, how do they go about reducing their carbon footprint, and from what starting point? No account is made, nor can it be, of any difference between the lower rates of normality of reducing your carbon footprint between the residents of Blacon and Totnes, for example. Why does such a difference exist? Is the starting point of their carbon footprint vastly different, leaving little room for one group to reduce it therefore they don't bother, or are other factors responsible?

As a 'classic consumer survey' its ability to establish causal relationships relating to the role of community in encouraging change is limited; a point that the evaluators acknowledged in the final evaluation report produced after the LCCC had officially ended:

> 'As with other research of this kind, a direct causal relationship cannot always be concluded, since the influence of other non LCCC factors and activities in the local area cannot be ruled out.'
>
> (DECC 2012, p. 15)

Yet the survey formed the principal evaluation mechanism by which change at the community member level was conducted. And, as noted earlier, it was not conducted in all twenty-two LCCC communities. The reason for one area being excluded from the process was described as follows:

> 'We didn't do a survey in Lammas because they have no community, which is a flaw in the evaluation, you know. It goes back to my point about us designing it blind. We were working on a number of assumptions about the size of the community, and what the communities would be doing and in most cases that actually has worked. I mean you can run a survey in Reepham and in Totnes and in Chale Green and you can ask the same questions all the rest of it, but in Lammas and a few others, there's just no...there's either no one to ask or nothing has happened yet, therefore what's the point in asking?'
>
> (DECC Official)

The quote, while seeming to dismiss any learning the forty or so residents of Lammas may be able to contribute to the LCCC, also reflects some of the institutional constraints in which the evaluation program was designed. A number of interviewees spoke of the culture within DECC requiring evidence of policy effectiveness in the form of quantified results:

> 'Within the context of, you know, the institutional context and the way it was all set up, there was always going to be a very strong quantitative element to it that misses nuance.'
>
> (Expert Network)

This was evident in discussions on the role of community and its ability to help DECC deliver on its policy goals (see Section 4.1). The fluffy nature and nuance of community interventions were described as being somewhat of a distraction for policy officials within DECC, who instead wanted to see evidence of the success or failure of the LCCC in terms they understood – numbers. As a result of Lammas having a population that was considered too small to produce robust statistically significant results it was simply excluded from that part of the evaluation process altogether.

### 4.3.3 Words don't count

An attempt to capture some of the missing nuance in the evaluation of the LCCC was contained in the qualitative research elements within Strand 2 (detailed in Fig. 4.2). This was comprised of a 'household experience', conducted in six LCCC project areas, and a 'community diffusion' element conducted in a further two. However its role in the evaluation was limited by the fact that it was excluded from the 'key metrics' which the LCCC was measuring (see Fig. 4.3), nearly all of which

relied on numerical measures of carbon consumption or statistical representations of changes in attitudes and behaviours based on survey data.

Household Experience:

Blacon, Chale Green, Hook Norton, Totnes, West Oxford, Whitehill Borden

- Objective: *Chart the experiences of LCCC households*
- One household from six projects (15 participants in total)
- Semi-ethnographic research following each household for (up to) six months
  - Two household visits lasting half a day (start and end of research)
  - Online: Weekly diaries, video uploads and activities

Community Diffusion:

Reepham

Muswell Hill

- Objective: *Explore networks and LCCC impact on communities*
- One rural and one urban LCCC project
- Three staged approach which will span (up to) six months
  - Mini-focus group with active community members
  - Telephone depth interviews with wider community (and community members)
  - Half day workshop with interested/involved parties

**Figure 4.2 Outline of LCCC qualitative evaluation (DECC 2011b, p. 19)**

The emphasis on quantitative data over qualitative data within DECC was made clear during an interview with an individual closely involved in the evaluation process. Reflecting on the relative merits of each approach, he commented:

> 'I think the quantitative will be relied on to show to the extent to which the LCCC has 'worked' in terms of carbon reduction and a behaviour change. Whereas I think the qualitative will be kind of the flavour by which one decides how insurmountable or surmountable the challenges are.'
>
> (DECC Official)

| | Metric | Captured by |
|---|---|---|
| | | |
| | **Energy Use & Carbon Impacts** | |
| 1 | Reduction in domestic energy use / reduction per £ spent | Strand 1 |
| 2 | Reduction in non-domestic energy use / reduction per £ spent | Strand 1 |
| 3 | Increase in installed renewable energy capacity | Strand 1 |
| 4 | Maximum potential carbon savings of installed 'kit' | Strand 1 |
| | | |
| | **Engagement with / reach of the LCCC** | |
| 5 | Number of individuals engaging via facilitation process and online platform | Strand 3 |
| 6 | % of residents in each area aware of / engaged with the LCCC | Strand 2a |
| | | |
| | **Social & Environmental Impacts** | |
| 7 | Net carbon benefits across behaviours as a whole (assessing "rebound") | Strand 2a |
| 8 | % of residents who say project has led to increase in community | Strand 2a |
| 9 | Increase in the social normalisation of pro-environmental attitudes | Strand 2a |
| 10 | Increase in the social normalisation of pro-environmental behaviours | Strand 2a |
| 13 | Decrease in % of residents concerned about being able to pay energy bills | Strand 2a |

**Figure 4.3 The key metrics being measured by the LCCC (DECC 2011a, p. 18)**

As the conversation progressed, I explored further his thoughts on the relevance of the qualitative evaluation to the LCCC. The following quote provides a clear summary of the rationale behind the use of quantitative methods as the perceived need for numbers – whether of communities or megawatts of electricity, was considered to produce 'robust', 'factual' research, whereas qualitative was not:

> 'We'd seen the way that some policy makers have reacted to purely qualitative reports about how effective communities are. So many reports out there you sort of you read the email, the little bit that comes across, and it says a report demonstrating how effective communities could be. You get

> very interested and very excited and you'd open it and you'd realise that actually there was no such evidence at all and basically someone had said they thought it was effective and somehow that had been blown up into a kind of a conclusion that they were effective.
>
> So a lot of the fundamental questions that a community kind of sector needs to answer about how many communities are there, what's the kind of megawatt capacity of community proposed projects, just haven't been answered.
>
> Are communities really better at changing behaviour? Are communities really better at engaging their communities? These are fundamental policy questions, which... and one could suppose we know the answer and we might have our own personal biases about actually I think yes or no, but from my point of view I've seen hardly any kind of robust research that would persuade my policy makers that the answer is yes, communities are better therefore we should engage them. So I think that's my worry about the qualitative research - it's almost like qualitative gets pushed too far and it's almost presented as a kind of factual based thing rather than learning based.'
>
> (DECC Official)

As mentioned elsewhere in this thesis (see Section 3.2), I am not a 'qualitative or nothing' researcher, and recognise the role quantitative methods can play in research. For example assessing the number of communities involved in energy projects and their megawatt generating capacity clearly call for quantitative methods. However applying a 'classic consumer survey' across each LCCC project area in an attempt to make 'like with like' comparisons removed the context-dependent nature of each community project. It was therefore an evaluation strategy destined to fail as the very thing it was setting out to provide 'robust' results on – the role of community in encouraging change – had been removed from the evaluation.

Another limitation of the evaluation strategy acknowledged by several interviewees was the reliance on practitioners for feedback on the projects progress, and the resulting lack of direct engagement with community members:

> ‘We are dealing with the practitioners as proxies for how it has been for your community. We are dealing with some of the households that are going through this to kind of tell us what the household experience has been like and what are the common issues that come up, for example, technology is not working in the way I thought it would. The practitioners are saying ‘Yes it is, they just don’t understand how it works’, so they’ve all got little tensions coming out. But in general there has been less engagement with those who have had stuff done to them, in a kind of strategic sense. So that’s definitely an Achilles Heel.’
>
> (DECC Official)

The quote raises a number of interesting points regarding the evaluation. Firstly, on whose authority are the practitioners acting as a proxy for the community members? Secondly, why not speak with the end-users to find out how they use technology before deciding who is doing it ‘right’? And finally, if it is an acknowledged Achilles Heel of the evaluation that there has been little engagement with community members why not change the evaluation? As the quote above highlights, and echoing a point made frequently by others closely involved in the LCCC evaluation, community members perceptions of how the project functioned may be very different, with these insights going unrecorded based on the evaluation framework and degrees of interaction between stakeholders in the LCCC.

The key point behind the critique of the evaluation of the LCCC is to draw attention to the fact that the methods chosen to evaluate it, based on the reflections of those involved in its design and implementation, are unlikely to capture the role of the very thing they set out to explore – community. For example, the use of large-scale quantitative surveys may be able to create ‘evidence’ of a shift in attitudes within a number of areas, but the mechanism by which that change has occurred are left unrecorded. As one interviewee described it:

> 'I mean the thing that DECC don't know is how much change can they attribute to individual community-level change? They don't know. Not much is what they probably think.'
>
> (Expert Network)

From the analysis presented here, I would argue that the LCCC evaluation provided little to either confirm or challenge that perception.

### *4.4 Practitioner perspectives on community*

Community practitioner perspectives on community match the complex understandings held by DECC officials and the expert network. Community was described by community practitioners as a bounded area as well as incorporating normative understandings based on ideas of place, identity and interest. Community based on actual social relationships and sustained by actions (*cf.* Delanty 2003) was also implicit in a number of their descriptions of community. For example, when asked to define community, one practitioner replied:

> 'Well, you know, you understand the classic answers, which are, you know, it's a place, or it's a group of people who are bounded by ideas, or mutual self-interest I guess. Blacon is... if I go for the biggest coz I see Blacon as a community, I see Blacon as a community because it's surrounded on three sides by fields and on the fourth side by an industrial estate. So it's basically cut off, it's like a big urban village and it has therefore a strong, very strong identity.'
>
> (Community Practitioner)

While another replied:

> (laughing) 'Oh that is an unfair question isn't it! What is community? Community is, to me, a group of people living together with common issues and common problems who can come together to make things better. You know, if you, I mean you get, you can get a community of identity, you can get a community of interest, you know, so it doesn't necessarily mean that it's

a community of people living all together. I mean within the Meadows we've got lots of different communities within communities and it's how you get to those communities and get them all interconnected and get them talking to each other.’

(Community Practitioner)

The fragmented and partial nature of community was implied in the way practitioners described the defining characteristics of their respective low carbon communities. For example Blacon was described as a series of three nested circles. At its core were members of the Blacon Energy Management Program, the 150 households recruited at the start of the LCCC with the goal of reducing their energy bills by 20%. Beyond that circle lay that of the two demonstration houses set up to showcase low-carbon technologies that it was hoped would attract up to 500 householder visits during the course of the LCCC, and beyond that lay the wider Blacon community itself.

Practitioners were aware of the potentially limited engagement of their respective projects with ‘the wider community’, as is evident in the following exchange:

*Respondent*: What we’re trying to do is strengthen the internal communities, the smaller communities to... or smaller circles to influence the wider circles steadily. I guess that’s the pictorial way of looking at it. Now if you ask people outside, in the third circle what the low carbon community is, most people in Blacon wouldn’t be able to answer that at all…

*Interviewer*: They wouldn’t be able…?

*Respondent*: No.

Blacon as a ‘big urban village’ and geographical community was clearly interpreted as a separate entity to the much narrower reach of Blacon as a low carbon

community. For other practitioners the partial nature of community was a result of the boundaries they placed around it:

> *Respondent*: My defining feature of my low carbon community is low income, definitely. It's my low income community. You know we do have one or two affluent people in the Meadows but they're rare. My low carbon community are low income, they all have I would say, the majority, and I can't say this for all of them, but the majority of them are, now, are keen to do their bit.
>
> *Interviewer*: To do their bit for?
>
> *Respondent*: In terms of saving carbon.

These exchanges indicate a number of the complexities of community highlighted in Section 2.2 that are currently lacking from the literature examining its role in the governance of environmental change. Firstly, if communities are bounded by ideas or mutual self-interest and based on strong identity then a challenge presents itself as to how develop that identity based on the abstract notion of becoming a low carbon community. Secondly, pre-defining community around a low-income identity creates the challenge of designing or defining symbols around which the community may unite (*cf.* Cohen 1985), as well as reflecting a potentially quite narrow understanding of the community that the LCCC project purports to represent (*cf.* Taylor 2011).

As the intermediaries between DECC and participants in the LCCC projects the practitioners' perspectives on community are particularly interesting. They show the same understandings of community that acknowledge its multiplicity, yet shaped their LCCC projects in ways that conformed to the instrumental understanding held by DECC. As Section 4.2 showed, this was in part a pragmatic response to the LCCC application form, the successful completion of which offered the lure of £500,000 in grant funding. However by acknowledging the divided and partial nature of

community they displayed an awareness of the difficulty of applying it instrumentally as they were required to by the LCCC.

### *4.5 Participant perspectives on community*

Lacking the obvious geographical boundaries around which to define its area, the Muswell Hill Low Carbon Zone was delimited by Haringey Council based on proximity to community buildings and Muswell Hill Broadway, the local high street. The area was described by one interviewee as ‘the archetypal urban case’ in which residents see themselves living ‘in some kind of splendid isolation up on their hill’ (Expert Network). Yet this ‘splendid isolation’ was described somewhat differently by one focus group participant in relation to her perception of others participants lived experience of the area: ‘You all live in a village, I live on Piccadilly’ (Muswell Hill-Participant).

She lived in a block of flats on the corner of one of the busiest intersections in Muswell Hill (hence the comparison to London’s Piccadilly Circus), and rarely saw and didn’t know her neighbours. She contrasted her sense of isolation with that of other participants in the focus group who she perceived as being a more close-knit group who lived in a ‘village’. The village in question was not the rest of Muswell Hill, but instead a group of three streets located just to the south of Muswell Hill Broadway, the main high street, in which one resident was particularly active in generating a sense of community in the (very) local area. He achieved this largely through the monitoring of new arrivals to the area and their addition to an email list he distributed to residents with details of items ranging from babysitting services to local police news. However while the majority of the eight focus group participants were from that area, many of them met at the focus group for the first time. Despite living in relatively close proximity to one another their experience of community was

virtual. Their identification and connection to the area was expressed as feeling a sense of community, yet without necessarily being supported by knowing anyone apart from the co-ordinator of the email list and their immediate neighbours.

What became evident from speaking with other participants in the Muswell Hill LCZ project was the similarity with which they described their experience of community. While they all lived in Muswell Hill and described it in broadly positive terms, their description of community was most often based on their immediate neighbourhood. For example, one participant who lived in a different part of Muswell Hill to the three-street village described above stated:

> 'Immediately in my road it's like the most unusual of places as in London you very rarely get friendly with your neighbours and there's like five of us in the road that are all very, very good friends and we all look after each other, each other's kids or dogs or what have you and do a few bits of shopping for each other. So in that respect it's kind of like living in the 1950s.'
>
> (Participant-Muswell Hill)

Blacon and Meadows residents also described community as being based on their neighbourhood and spoke of it in similar terms to those detailed above; however the principle difference was that they also tended to know and speak with people in the wider area. They also spoke of divides in each area: the Old Meadows / New Meadows divide, and the North / South divide created by the main road in Blacon, along with the lack of a centre or focal point for each area. Yet they also described a sense of connection to the wider area in ways that Muswell Hill residents did not. This was most often expressed as a desire for it to be seen in a more positive light by outsiders. Participants in both areas spoke of a troubled past with a range of social

problems leading to a negative perception of the areas that they considered outdated and no longer an accurate reflection of living in Blacon or the Meadows.

Another distinction in the way Blacon and Meadows residents spoke of community compared to those in Muswell Hill was in relation to time: both the length of time they had been living in the area, and that of their neighbours. For example the Meadows resident who had lived in the area for twenty-five years but had recently become surrounded by rental properties with a frequent turnover of tenants that she felt undermined her sense of community, or the twenty-year Blacon resident who described it as follows:

> 'Well, originally it was just a place to live, coz the wife's from Blacon and I come from Ellesmere Port, so my heart was in Ellesmere Port. But Blacon always, to me, seems like you're living there, but you're not part of it at first. It takes a long time to be part of it, but I think I'm slowly becoming part of Blacon and I think that's due to knowing, like groups like this *[Sustainable Blacon]*, knowing people in the area, talking to neighbours and socialising with them to be part of it. But if you didn't, it would just be a council housing estate and you living on it and that's it.'
>
> (Participant-Blacon)

Several other participants had lived in Blacon for ten years or longer yet also spoke of not feeling part of the community, in contrast to a number of Muswell Hill participants had lived in the area for less than two years yet did describe feeling a sense of community. Community, it would seem, is therefore both context- and time-dependent for some participants.

Across the three areas in which participant interviews were conducted the common theme to emerge was their identification of the local neighbourhood – which in some cases was just a few streets – as what community meant to them. For

participants, community was about knowing your neighbours and local, and based on a desire to create a better place. It was also something you did:

> 'I'm a joiner' (Participant-Blacon)
> 'We're community people' (Participant-Blacon)

Or you didn't:

> 'I'm not a joiner' (Participant-Meadows)
> 'I'm not really a community person' (Participant-Meadows)

Three key points can be drawn from the participant interviews. Firstly, none of them identified with either their local neighbourhood or wider area on the basis of it being a low carbon zone or community. Low carbon living was *not* an organising principal or interest around which their ideas on community were formed in the same way as, for example, Lammas or intentional communities such as Brithdir Mawr in Wales (*cf.* Healy 2003; Horton 2003; Hatton 2008). So, while community was being told to make itself relevant to DECC policy goals, community practitioners would appear to have been charged indirectly with the same task by community members. Secondly, none of them understood community in instrumental terms. Instead, and to admittedly varying degrees, it was experienced as an emotional response to the area in which they lived as a place (*cf.* Creswell 2004). Thirdly, the sense of community many participants spoke of was not something they experienced directly when speaking to their neighbours or when walking the streets of their neighbourhood, for example. Nor was it something many of them appeared to spend much time theorising over. In other words, community was not tangible to them, and needed to

be drawn into being through having questions asked of it as part of the interview process in order for its presence to be recognised (*cf.* Rose 1996).

### *4.6 Summary*

This chapter set out to answer the first question this thesis addresses: within the contexts of efforts to use community as a means of encouraging positive environmental change, what does community mean? The principal finding of the chapter is that it is complex, multiple and contested, yet malleable enough to be shaped into a narrow, instrumental form to match the understanding of its role held by DECC.

Community practitioners were tasked with making themselves relevant to DECC's policy goals. This required them to conform to the problem framing and understanding of the role of community in tackling climate change held by DECC. The chapter highlighted how this resulted in a number of practitioners shaping their applications to meet the narrow LCCC selection criteria, regardless of the more complex understanding they held of their respective areas revealed through the interview process.

The 'like with like' evaluation strategy of the LCCC was shown to have reduced further the multiplicity of community. Community became an instrumental tool through which to quantify carbon reductions and attitudinal change. As a result, the chapter argued, the role of community in encouraging change was unlikely to be recorded.

Finally, and perhaps most importantly, the chapter highlighted the contrasting understanding of community held by different stakeholder groups in the LCCC. While policy officials acknowledged the multiplicity of community, its principal application within DECC was as a policy actor to be appropriated to help meet its

energy generation and carbon reduction goals as part of its broader remit to tackle climate change. This view stood in contrast with that of community practitioners and community members, whose understanding was grounded in their local neighbourhoods around which ideas of identity and belonging were expressed – although not in terms of either climate change or carbon savings.

In the following chapter I present an analysis of what happened in Blacon, the Meadows and Muswell Hill when these conflicting understandings of community came into contact.

# Chapter 5 Constructing Low Carbon Communities in DECC's image

Chapter 4 highlighted how, within the LCCC, community was a multi-faceted concept subject to contested understandings regarding both what it is and what it can do. In particular, it showed that despite officials and experts associated with the LCCC acknowledging the multiplicity of community it was applied in a narrow, instrumental manner that conformed to DECC's understanding of its role as a delivery mechanism for a policy agenda based on energy generation and carbon accounting. This chapter seeks to build on that argument by answering the second research question this thesis addresses: what effects, if any, do these meanings have on efforts to govern environmental change through community? It is a question in two parts, requiring an analysis of how community practitioners put the details described in their applications to the LCCC into practice, before moving on to analyse how participants in the respective project areas responded.

From a social constructivist perspective the projects are themselves constructions, and therefore must be described as such within the empirical chapters of this thesis. This is particularly true given the arguments put forward in Chapter 4 in which I described how DECC and the LCCC applied community in an instrumental way that conflicted with the view of a number of practitioners and community members who understood it in normative terms based on shared identity and connection to place. In addition, the projects were constructed as a response to the application form which was a central element through which DECC controlled both what a low carbon community is and what it can do. In order to win funding, practitioners were required to conform to DECC's instrumental application of

community and apply ‘tried and tested’ methods incorporating the ability to quantify results. This chapter presents details of how practitioners in Blacon, the Meadows and Muswell Hill constructed their respective LCCC projects in that image. The chapter then moves on to discuss the common themes around social dynamics that emerged from the participant interviews. These included the social acceptability of talking about carbon, energy or climate change; individual’s perception of their own behaviour towards the environment; and personal carbon-offsetting as a means of justifying their continued ‘maladaptive behaviour’ (Maloney and Ward 1973, p. 583). Finally, the chapter will discuss the implications of these dynamics on the ability of community to tackle climate change.

The key argument this chapter seeks to make, and where it builds on those made in Chapter 4, is that the principal effect of DECC’s narrow, instrumental understanding of community on practitioners was to require them to reproduce narrow, instrumental projects conforming to that image. As a result, community in the form it took in the LCCC offered little different to previous efforts at governing environmental change, and by association tackling climate change. Applied instrumentally community did little to challenge what I term the *real* low carbon communities challenge: social dynamics within the household and what constitutes patterns of normal behaviour beyond it.

## *5.1 Sustainable Blacon, Chester*

Blacon is a physically distinct suburb of Chester adjoining the Welsh border in the north-west of England, with a population of around 16,000. The Blacon LCCC project was organised by Sustainable Blacon, a subsidiary of the Blacon Community Trust, a local social enterprise.

The Blacon LCCC project was divided into two strands. The first involved two demonstration houses showcasing measures intended to help people reduce their fuel bills by twenty percent. The first house focussed on low or no cost measures including draught excluders, loft insulation and low energy light bulbs while the second included additional measures such as solid wall insulation and solar hot-water panels. Additional information on energy saving tips and other topics such as household waste and water management and sustainable transport was also provided in both houses.

The two houses were staffed by local volunteers who had been trained to provide information to visitors on the various technologies and the financial and energy savings that could be made by installing them. The choice of technologies was restricted to those that were considered within the capabilities of local residents to afford and install – in other words overcoming the perceived barriers of cost and technical know-how as restricting factors to installing low-carbon technologies. To further overcome these barriers two staff were employed by Blacon Community Trust to carry out tasks such as fitting low-energy light bulbs and clearing (and then refilling) lofts to allow insulation to be laid.

The rationale behind the use of demonstration houses was described to me by a Blacon project officer as follows:

> ‘So providing things which are visible and tangible, which is essentially the demonstration houses is a key thing to do… we’re such a visual, a visual civilisation, visual culture, everything that we do, we have to see or be able to talk to people and touch, so I think that’s so important, you know. […] The message is that you can save quite a lot of money and a lot of carbon by not doing very much, by not spending very much, therefore, and that’s the message that we need to get out and find out how that can be built upon in other parts of the UK.’

(Practitioner-Blacon)

In this way, the demonstration houses were intended to make energy use visible (*cf.* Marres 2008; Hargreaves *et al.* 2010, 2013) in ways that it was hoped would encourage the uptake of measures designed to reduce usage, and by association carbon emissions. Yet uptake of the measures was ultimately reliant upon individual's responding to an individualist understanding of human behaviour based on correcting a perceived information-deficit.

### 5.1.1 The Blacon Energy Management Program

The second strand of the Sustainable Blacon project involved recruiting 150 households to participate in the Blacon Energy Management Programme (BEMP), a year long community education programme focussed on energy saving and energy efficiency. It shared the goal of helping reduce household fuel bills by twenty-percent, and used the potential to save money as the principal mechanism through which to encourage participation (see Fig 5.1 for examples of recruitment flyers).

Regular meetings were held as part of the BEMP to discuss topics such as how to save energy within the household, along with visits from specialist external agencies to talk on broader sustainability topics such as food waste. In order to facilitate attendance several meetings each month were scheduled at different times of day rather than rely on a single time and date, with the emphasis at the meetings on encouraging people to talk with each other to share their experience of the BEMP.

The 150 households were subdivided into three equal groups: one was provided with access to an online energy monitoring system called AlertMe[12]; a second received a Wattson[13] real-time display energy monitor; and the third received no additional technology.

[12] Visit www.altertme.com for more information.
[13] Visit www.diykyoto.com/wattson for more information.

**Figure 5.1 Blacon Energy Management Program recruitment flyers**

The AlertMe system (see Fig 5.2) required users to login to a computer to monitor their energy usage, whereas the Wattson (see Fig 5.3) could be positioned anywhere in the home to provide a visual indicator of real-time energy usage.

**Figure 5.2 Screenshots of the AlertMe homepage displays. Only three icons are displayed at any time, each of which hyperlinks to a full page providing further details of the relevant icon.**

**Figure 5.3 Wattson real-time energy display. The display could be set to show energy usage in pounds or kilowatts as per the user's preference.**

The groups that received energy monitoring equipment were provided with training in their homes on how to install and use it, with additional training sessions provided during some of the initial BEMP meetings. During the course of the BEMP a number of participants were visited at home by AlertMe staff to provide further training to overcome difficulties that they had reported to project officers – hinting at the complexity of the system for users unfamiliar with the technology.

Participation in the BEMP was incentivised through the offer of an energy-efficiency capital-measures grant of up to £2000 awarded at the end of the programme to households attending seventy-five percent or more of the meetings. Ninety-seven households were still active in the program when it ended in April 2012, with thirty-four households expressing an interest in continuing to meet once the BEMP had ended.

The principal goal of the BEMP was to assess what was the most effective way of reducing householders' energy consumption, and therefore energy bills: the social interaction and discussion of energy saving, the technology – and if so which one, or a combination of them both. Further to those goals each householder participating in the BEMP was encouraged to talk with at least three other people they knew within Blacon who they thought might benefit from learning how to save on their energy bills. By doing so it was hoped that participants would become 'community champions for energy efficiency' (Practitioner-Blacon) and advocates for a low-carbon lifestyle.

While the Blacon LCCC project incorporated participatory elements such as the BEMP, the discourse of save energy save money was the dominant message by which it aimed to encourage participation. The rationale for the focus on saving money was explained as follows:

> ‘First of all Blacon is an area of disadvantage, about nearly a half of it is in the top 10% for disadvantage in the country, so there’s not a lot of money around and money therefore takes on quite a sharp focus for most people. It’s not by any means, you know, a completely disadvantaged area, there are lots of people who are, in other parts of Blacon who are relatively well off and we’ve deliberately focused the programme to include both halves of the population. […] The other reason I say that is because when people apply to join the programme we ask them what their main interest was and they all said – well, almost all of them said ‘saving money’. You can’t see carbon but people understand money and as passionately as I feel about, you know, creating a low carbon, a low carbon community – and that’s what we’re about here, you know, it’s a much more difficult task to do that, just using a carbon angle.’
>
> (Practitioner-Blacon)

Evaluation of the energy savings made by participants in the BEMP was conducted by researchers from the University of Chester. Gas usage was shown to have decreased by 3%, although with considerable variation between those households that reduced their consumption and those that increased. Electricity consumption across participating households increased, with those that reduced their consumption being offset by those which rose. Overall, the BEMP recorded a small decrease in energy consumption that was well short of the 20% target (Alexander and Hunt 2012).

### *5.2 The Meadows, Nottingham*

The Meadows is a predominantly residential district of Nottingham that is cut off from neighbouring areas by the River Trent and several major roads. It has a population of approximately 9,000.

The Meadows LCCC project was organised and delivered by the Meadows Partnership Trust (MPT), a local charity and social enterprise. The MPT, in common with the Blacon Community Trust, had been working in the local area for well over a decade. It had been involved in delivering other energy-focussed programmes such

as Nesta's Big Green Challenge[14], British Gas' Green Streets[15], and Scottish Power's Energy People Trust[16], all of which were grant funded projects subject to a competitive bidding process which required showing evidence of how the MPT would engage with local residents.

In contrast to the Sustainable Blacon project, the Meadows project organisers made the decision to base their low carbon community around the installation of solar PV. Practitioners explained the rationale behind this as being based on increasing the visibility of solar PV in an effort to normalise their presence in the Meadows. The goal was to raise awareness of the potential for renewable energy technologies to tackle fuel poverty as well as make a small contribution to tackling climate change. The revenue stream provided by feed-in-tariffs was to be used to fund future projects within the Meadows including the installation of additional solar PV in a virtuous circle of self-financing community engagement and regeneration.

A total of fifty-five houses, three local schools and a community centre received solar PV panels through the project. Each household that received solar PV panels was visited by an MPT staff member who discussed with them how to make the best use of the panels in order to reduce their energy consumption. This included advice to use appliances involved in their daily routine such as washing machines during daylight hours.

Mapping the locations of the solar PV arrays in the Meadows (shown in Fig. 5.4) indicates they are spread fairly evenly across the area, with the occasional two or three sets of panels installed within close proximity to one another. The obvious exception to this is a section of Robin Hood Way, the main east-west route through the Meadows, along a two-hundred metre stretch of which nine of the fifty-five solar

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[14] Visit http://www.nesta.org.uk for more information.
[15] Visit http://www.greenstreets.co.uk/ for more information.
[16] Visit http://www.energypeopletrust.com/ for more information.

PV arrays installed in the Meadows were installed. At first glance this might suggest that the Meadows LCCC project was fairly inclusive as it engaged residents throughout the area, and possibly encouraged neighbours to speak with one another to encourage them to apply for solar PV panels themselves. While the latter did occur to some extent (discussed in Section 5.5), the extent to which the project engaged with local residents was limited by the selection process involved in allocating the solar PV panels.

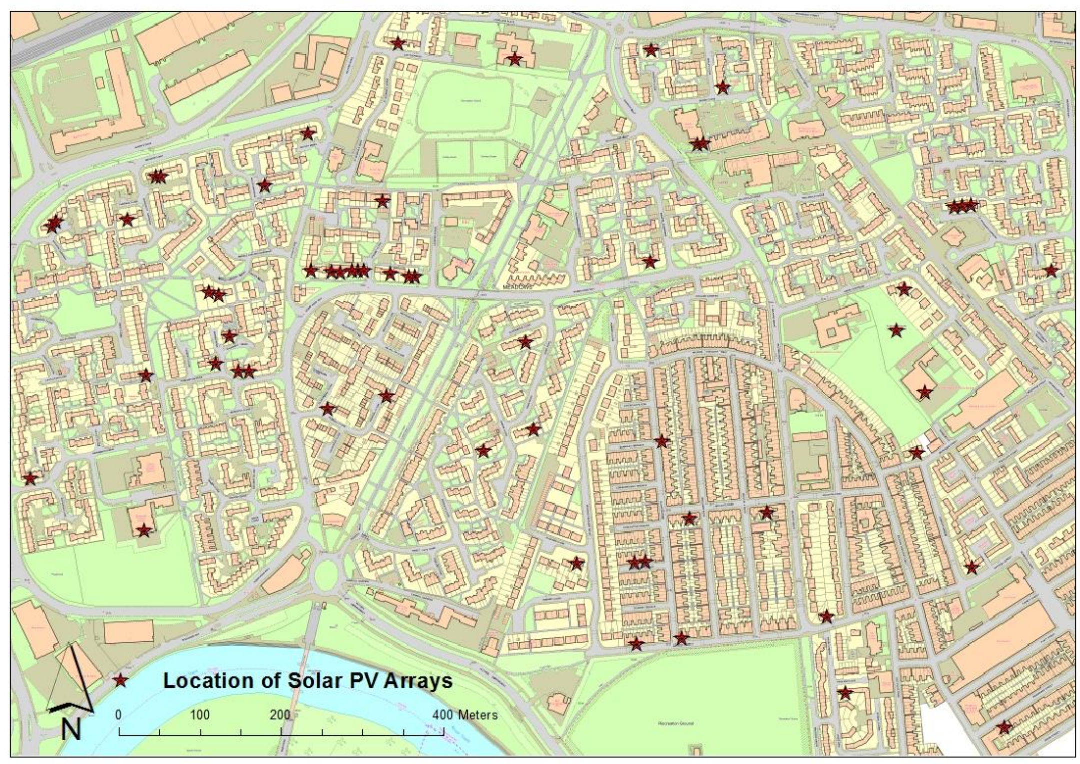


**Figure 5.4 Meadows LCCC funded solar PV installations**

### 5.2.1 The solar PV selection process

Three selection processes for allocating solar PV panels were devised by project organisers in the Meadows. These were based on:

- Applicants who were able to pay 50% of the cost of the solar PV panels
- Assessed financial need of low-income owner-occupier applicants
- A Nottingham City Homes (NCH) list of social housing in the Meadows

An important additional factor – although one that was not assessed directly as part of the initial application process - was that the property have a south-facing roof suitable for the installation of solar PV panels. Without one, and regardless of how well an applicant met the other assessment criteria, their application was rejected.

For applicants able to pay 50% of the cost the process was relatively straightforward: if their roof was suitable, they could have them, with their 50% contribution payable either as a lump-sum or through an interest free loan provided subject to status by the MPT. Those applying for solar panels based on an assessment of their income were required to complete an application form that assessed their financial need. The precise number of low-income applicants was unavailable; however a Meadows project officer suggested they received approximately fifty.

Applications were assessed by members of the MPT who based their decisions on what was described as 'pure need and merit' (Practitioner-Meadows). A short-list of around twenty-five potential recipients was drawn up in order of assessed financial priority. The home of each short-listed applicant was then subject to a building survey to assess the suitability of the property for solar PV. If it was deemed suitable they were allocated panels, and if not they were provided with additional energy saving advice and the option of participating in the British Gas Green Streets project. A total of twenty households received solar PV at zero-cost based on the low-income assessment criteria, with at least one recipient under this section of the project expressing surprise at having qualified for them:

> '…originally I was actually rejected because obviously I'm not on benefits, you know, my income is enough, it's, you know, I didn't qualify for those reasons I don't think. But then I think they were struggling to find people to,

> for the solar panels because you have to have a south facing roof, you have to have a fairly new fuse box apparently, and different reasons, and I think they were struggling to actually find houses that were suitable. So, in the end they just came back to me and said, well you know do you want, do you still want them? I mean, I think originally I did, I did state that I'd be willing to pay for half, coz one of the options was to pay for half and the community group pay for the other half. But, in the end no, I got them free so it was great.'
>
> (Participant-Meadows)

Social housing residents in the Meadows automatically qualified to be considered for solar PV which was allocated on a first-come, first served basis. Once again the process was simple: if they had a suitable roof, they could have them. In order to receive them they had to register their interest in the project with the MPT and have their property pass a building survey.

In addition to being advertised in the local press, all social housing in the Meadows, estimated by one Meadows project officer as around eighteen-hundred homes, was hand-delivered a flyer promoting the project. Initial uptake of the offer was less than anticipated by Meadows project officers. In an effort to overcome this, the social housing list provided by NCH was further analysed to identify those which were south-facing. These houses were then visited by a MPT staff member who described what happened as follows:

> 'So what we did with that was we followed up that with an actual door knock and said 'you've been selected for free Solar PV. Nottingham City Homes has given us your address, are you interested? Here's the information' I had 6 people turn me down on the doorstep. One woman who said 'I've seen 'em I'm not having that on me roof. It looks a right monstrosity.' 'Yeah but you'd be looking at a 30% reduction in your fuel bills?' 'Nah.''
>
> (Practitioner-Meadows)

What is particularly interesting to note in relation to both the low-income and social housing sections of the Meadows LCCC project is the difficulty project

officers experienced in giving away the solar PV panels despite the assumed benefits to recipients of a decrease in their energy bills. This response by Meadows residents was interpreted by practitioners as being at least in part as a result of a lack of knowledge of, or trust in the MPT; however as the project progressed and solar PV arrays started to become visible around the Meadows these problems were perceived to have been overcome. Reflecting on this shift, a Meadows practitioner observed:

> *Respondent*: You know because we have been established in the community for a long time. We know lots of different people through our different forums, groups and everything else. So it, once, you know, there were those that had them because, you know, oh great, this is great, and trusted us that we weren't conning them. And then the doubting Thomases shall we say came on board as soon as they saw them going up and 'oh right' and talking to the people that were having them, and it was 'oh right, ok'. I mean we got some phone marvellous phone calls. I mean we got a phone call saying 'oh I've been away on holiday and I've just seen this letter you sent me'...[disbelieving] yeah, three months ago...[laughs]...'about them there solar panels, we're interested in them'. That was three months age we sent you that! But you know...
>
> *Interviewer*: With the people who initially got involved, what do you suppose, what made them get involved?
>
> *Respondent*: On the solar PVs?
>
> *Interviewer*: Yes.
>
> *Respondent*: I think it was because of the savings to them in the bills, pure and simple. I mean I know one of them, one of the low income families, she was paying through a card meter. So you're paying the highest rate. And I think before her solar PV was put in it was ten to twelve pounds a week on electricity through the meter, now it's five or six.
>
> *Interviewer*: Right.
>
> *Respondent*: And I mean she got involved purely because any, any saving at all on her electricity would have been, you know, a blessing. They don't have a lot of money and that five or six pounds to them is a lot of money. To others it might not be, but you know when you're on a low income it can be significant.

This exchange, together with the earlier quotes in this section, highlights the narrow focus of the Meadows project on alleviating fuel poverty at the household level. It also highlights the difficulty the Meadows project had in engaging local residents in a project that was offering them several thousand pounds worth of solar PV panels for free. The Meadows practitioners had assumed that a long-established community organisation delivering a means of improving the social welfare of a select few households in the Meadows would have encountered few difficulties with their project, and were genuinely surprised when it proved not to be the case.

Summarising the Meadows project, it was narrow, instrumental and focussed on delivering technological fixes to individual households. It delivered a top-down, centrally administered project with little direct or active involvement from residents in the Meadows other than those required to fill out a form to assess their financial need. In that sense the Meadows LCCC project most closely matched the understanding of community held by DECC. Yet it made no attempt to quantify the carbon savings being made, requiring only that recipients of solar PV panels forwarded their meter readings to the MPT to enable them to collect the FiT revenue.

### *5.3 Muswell Hill Low Carbon Zone, London*

Muswell Hill is a suburb in north London, of which the Low Carbon Zone (LCZ) comprised a small area focussed around Muswell Hill Broadway, the main road through the area. A mix of businesses, community buildings, schools and 840 private and council owned residential properties were contained within its boundaries (shown in Fig 5.5). The project aimed to deliver a 20.12% reduction in carbon emissions within the Muswell Hill LCZ by 2012.

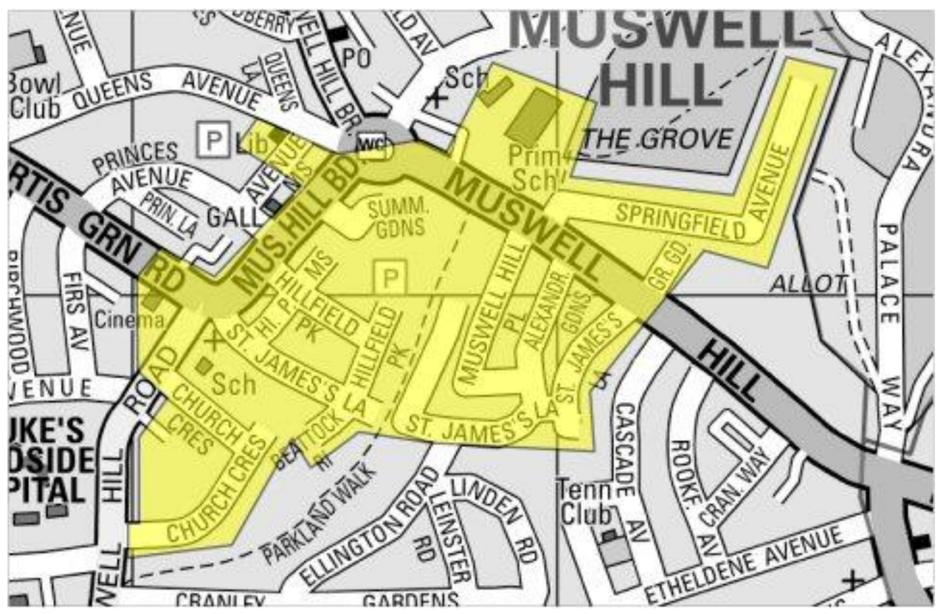


**Figure 5.5 The Muswell Hill Low Carbon Zone**

The Muswell Hill LCZ was in effect two projects in one – the organisers having successfully applied to the Greater London Authority (GLA) who provided the initial funding for the Low Carbon Zone before then going on to successfully apply to the LCCC. It was a joint bid by Haringey Council, the local authority for the area, and the Muswell Hill Sustainability Group (MHSG), which was formed by residents to encourage local engagement on sustainability related issues. Council staff and MHSG members formed a steering group that met at regular intervals to discuss various aspect of the project, which was administered by the council.

The LCCC provided funding for solar PV arrays that were installed on a local supermarket, a Methodist Church and several local schools[17], cycle hoops on Muswell Hill Broadway and construction of a zero-carbon mobile cabin designed as an educational tool to provide information on low carbon building technologies and sustainability issues to local schools, community groups and residents.

[17] An interesting example of the limitations of a bounded approach to delivering community projects is that one of the schools that received solar PV was outside the LCZ. The lack of suitable buildings within the zone and the desire of the project organisers to engage with local schools required gaining permission from DECC in order extend the delivery area of the project beyond its boundaries.

### 5.3.1 The Green Home Makeover

Funding provided by the GLA was used in part to subsidise at low or zero cost to residents the Green Home Makeover (GHM) - a whole house retrofit program. The program recruited fifteen local volunteers whose task was to door-knock every domestic property within the Muswell Hill LCZ in order to inform residents about the program and to encourage their participation.

The use of local volunteers and peer-to-peer communication, as opposed to council staff or commercial organisations, was a strategic decision taken by the project steering group. It was felt that the credibility of the project would be enhanced if local people were seen to be delivering what was being presented as a community-based project. Volunteers were trained in how to save energy and reduce their environmental footprint and were encouraged to share this knowledge in conversation with residents. They also carried with them a GHM booklet. The booklet (snapshots of which are shown in Fig 5.6) was provided to all households within the LCZ. It contained information on behaviour change measures such as turning the thermostat down and not overfilling the kettle and practical measures such as topping up loft insulation that residents in the LCZ could carry out to reduce their energy consumption.

Participation in the GHM consisted of agreeing to being contacted by a representative from a third-party organisation to arrange a home energy audit. As part of the home energy audit measures such as draught-excluders, radiator reflectors and tap flow restrictors were fitted if required, with larger measures such as loft or cavity wall insulation being discussed as additional measures to be considered and where possible appointments arranged to install them.

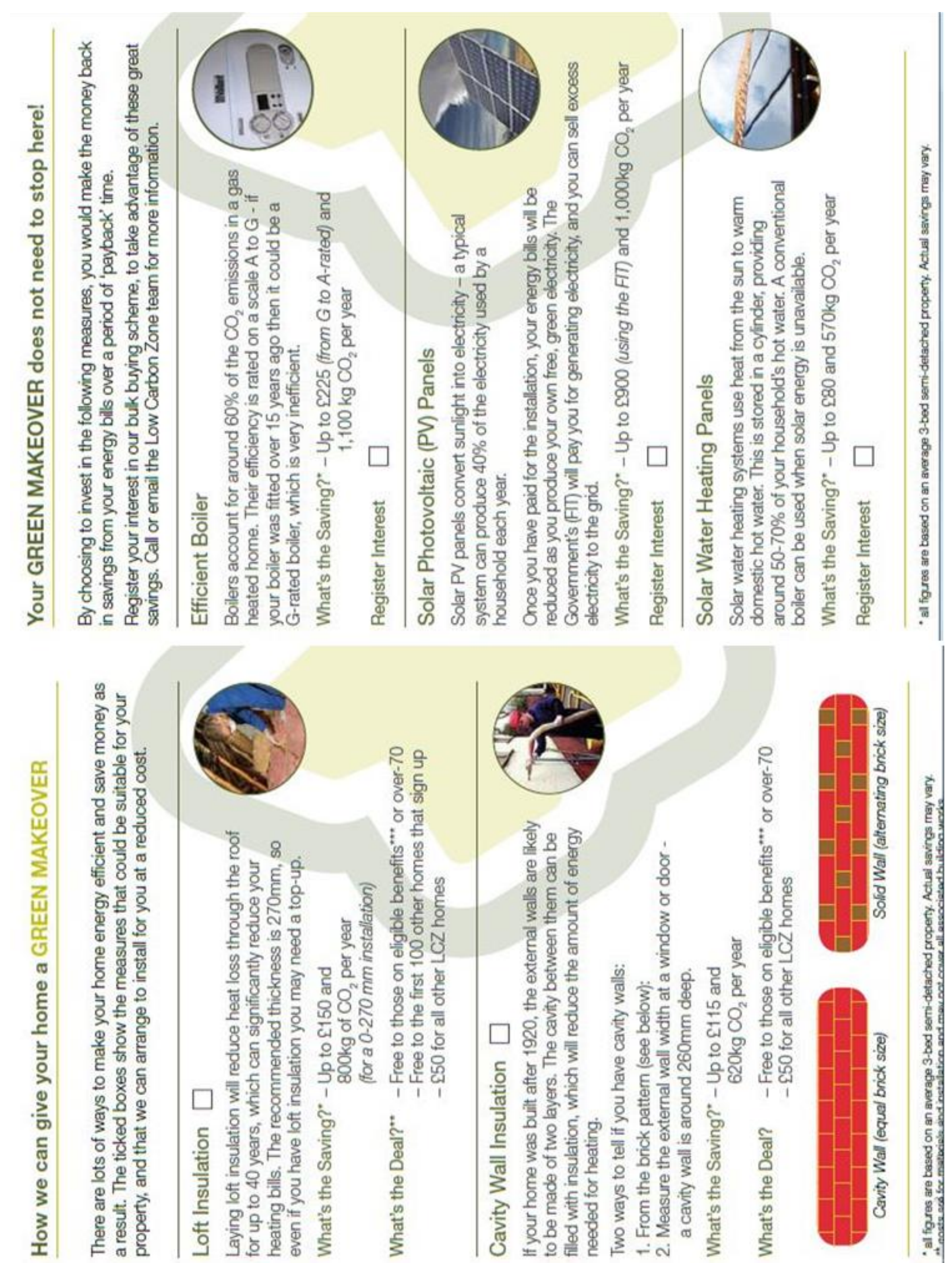


**Figure 5.6 Sample pages from the GHM booklet**

The GHM contribution to reaching the carbon reduction target was recorded in a spreadsheet that contained the number of installed measures, each of which had a carbon saving value attributed to it. For example each water-flow restrictor installed equated to 0.13 tonnes of carbon saving per year being recorded, while each loft-insulation carried out equated to 0.6 tonnes. Targets were set for each measure, and

progress in achieving them reported in evaluation reports produced at the mid-point and end of the project[18] (see Table 5.1 for details).

**Table 5.1 Record of GHM installed measures against target as shown in the mid-project evaluation report produced by Haringey Council (adapted from Haringey Council 2011 p15)**

| **Number of measures installed** | **Mid-project target at start of LCZ** | **% of Mid-project target for each measure** | **Carbon saving per measure ($tCO_2$/annum)** | **Total carbon saved ($tCO_2$/annum)** |
|---|---|---|---|---|
| **246** Stand-by switches | 200 | 123% | 0.05 | 12.3 |
| **14** Hot water tank jackets | 90 | 16% | 0.2 | 2.8 |
| **191** Tap aerators | 200 | 95% | 0.08 | 15.28 |
| **156** efficient shower heads | 200 | 78% | 0.13 | 20.28 |
| **202** save-a-flush’s | 150 | 135% | 0.01 | 2.02 |
| **134** hose triggers | 100 | 134% | 0.01 | 1.34 |
| **181** shower timers | 150 | 121% | 0.14 | 25.34 |
| **285** Visual display units(energy monitors) | 350 | 81% | 0.08 | 22.8 |
| **859** Low energy light bulbs | 1000 | 86% | 0.067 | 57.55 |
| **222** chimney balloons | 200 | 111% | 0.12 | 26.64 |
| **1127** radiator panels | 1000 | 113% | 0.06 | 67.62 |
| **134** homes have been draught proofed | 175 | 77% | 0.23 | 30.82 |
| **19** homes have received loft insulation | 200 | 9% | 0.6 | 11.4 |
| **3** homes have received cavity wall insulation | 30 | 10% | 0.6 | 1.8 |
| **0** homes have completed floor insulation | 40 | 0% | 0.2 | 0 |
| **0** homes have completed solid wall insulation | 20 | 0% | 2.5 | 0 |
| **4** high-efficiency boilers | 40 | 10% | 1.1 | 4.4 |
| **3** solar PV arrays | 15 | 20% | 0.9 | 2.7 |
| **0** solar thermal installations | 15 | 0% | 0.5 | 0 |
| | | | **TOTAL** | **305.09** |

[18] While the Muswell Hill LCZ project has formally ended, at the time of writing the final report has not been published.

In summary, the Muswell Hill LCZ project, while attempting to encourage residents to identify with the project through the use of local volunteers and communications designed to stress the local nature of the project, was ultimately reliant on the provision of information to individuals based on a save energy, save money discourse; and the aggregation of installed measures and estimated carbon savings as a means by which to gauge its success. On that basis, it could be argued that the Muswell Hill LCZ had little or nothing to do with community other than as a geographically bound entity through which to deliver carbon reduction measures, therefore matching the instrumental understanding of community held by DECC. However observations of the steering group and interviews with a number of its members suggest a more complex series of understandings of community were present.

### 5.3.2 The mixed motivations of the Muswell Hill LCZ steering group

The governance structure of the Muswell Hill LCZ project combined representatives of Haringey Council with members of the Muswell Hill Sustainability Group and representatives of local residents associations in a steering group that met regularly to discuss project progress.

Meetings were held to discuss various aspects of the project such as the progress they were making in meeting their carbon reduction target. A number of steering group members spoke of tensions existing between them, with the council members on the steering group in particular being viewed initially with some mistrust and misgivings by others. This was in part due to the role of the steering group as an advisory body without decision making powers. These tensions were summed up during the first steering group meeting I attended when one member

asked rhetorically ‘Can we make decisions?’ to which the reply came ‘No, we can only steer’ (Field Diary 3).

The exchange was a response to the frustrations felt by steering group members at the perceived inflexibility in implementing the project. In effect, what was in the original applications to DECC and the GLA was what had to be delivered, regardless of any ensuing issues or alternative ideas that emerged. The only way this could be altered was by the council representatives consulting with the funders – DECC or the GLA – to request an alteration to the original project plan or to extend the project beyond the Muswell Hill LCZ boundaries as with the installation of solar PV on local schools.

Despite these tensions the steering group continued to meet regularly to discuss the project’s implementation. One council representative described how during his involvement tensions within the steering group that had resulted in overrunning meetings in which little was achieved had been largely overcome. Tensions still existed between members of the group; however they were now less divisive and able to be overcome as the group united around the shared goal of delivering the Muswell Hill LCZ. In that sense the steering group can be considered as an emerging community of practice (Wenger 1998; *cf.* Van der Horst 2008) in that they were involved in a joint enterprise in which they were mutually engaged and had developed a set of shared understandings on how to go about doing so.

Yet while the steering group appeared to share the goal of delivering the Muswell Hill LCZ project, their motivations for doing so were many and varied. Some members described wanting to create a model for sustainable urban living that could be replicated elsewhere in the United Kingdom, mirroring one of the criteria by which the LCCC applications were assessed (see Section 4.3). Others spoke of the

project giving them a means by which to feel a greater sense of involvement in addressing the challenges of climate change, while others spoke of a sense of duty they felt to the community in which they lived.

One steering group member summed up his involvement as ‘It’s not exactly changing the world but I’d rather do it than not’ (Participant-Muswell Hill). As part of his involvement in the project he had volunteered as a GHM door knocker, drawn on his local contacts to help populate the steering group, wrote copy for ‘In the Zone’ newsletter produced as a communications tool for the project, and staffed LCZ stands at various local events. He described the Muswell Hill LCZ as one of his ‘worthy causes’ that he was able to give time back to now that he was retired, and expressed his belief in the value of locally run projects that were designed for the benefit of local people. Other interviewees who knew him all spoke of his enthusiasm for the project. Yet at the same time he was openly doubtful of the overall objectives of the Muswell Hill LCZ to make a significant contribution to what he saw as the much larger issue of tackling climate change. While recognising what he perceived as the seriousness of climate change he went on to explain:

> ‘I just don’t see communities getting to where they need to be by just insulating their lofts, getting on bicycles. I think just like during the war you’ll do these things under pressure of necessity but as long as people have freedom a large percentage will say why should I do these things?...[u]nless you actually curb their freedom or frighten them really badly I don’t think people will change.’

His high level of involvement in the project, despite appearing doubtful of its goals, alludes to Goffman’s (1959, 1974) idea of social life as a performance in which certain acts are publically performed in ways that are seen as appropriate to the context or frame in which they are set. While he considered community to be

important and worth promoting through his work with the Muswell Hill LCZ the environmental message behind the project was considered inappropriate in this context:

> 'I don't do a heavy environmental sell. I'm not sure at what point I decided but, really, the fact that it must be a positive service that we're doing – nobody can say that it isn't – and that it is free. There isn't much left to argue about...I don't try and persuade them to try and improve their lifestyle.'

The last remark reflected his views on lifestyle change as a personal issue and not one for public discussion. While he was happy to discuss the material changes made to his property through the GHM he remarked that he was not aware of having changed his own behaviour as a result of the Muswell Hill LCZ, and regardless of whether he had or not felt that it was inappropriate to share that information with others. Yet at the same time his awareness of the impact of both his and others lifestyle on the climate was apparent:

> 'My mind has jumped that gap that carbon is what's changing the climate, and I think most people make that connection but not very much in their own lives – you know they all still drive their cars and everything…and also the trouble is our climate isn't changing that much really…it's difficult to feel really that our climate is changing in a way that is really hostile to our present life. Here in Muswell Hill it just seems like it always was.'

His involvement in the project seemed based on his connection to Muswell Hill as a place; with his views on climate change recognising both the scale of the issue and the limited impact that projects like the Muswell Hill LCZ may have in addressing it. His awareness of climate change was apparent, yet its appropriateness as a topic of conversation in encouraging participation in the GHM, and as a motivator for changing lifestyle was considered not relevant to many people's lives

(*cf.* Lorenzoni *et al.* 2007; Whitmarsh *et al.* 2011) nor an appropriate form of conversation due to its overt environmental focus (*cf.* Moisander and Pesonen 2002; Hargreaves 2011). Alternatively, it was actively avoided through a form of socially organised denial (Zerubavel 2006; Norgaard 2006, 2011).

The purpose of focussing on this particular individual in such detail is not to question his motivation or commitment or in any way undermine his role in the Muswell Hill LCZ – although I accept that one could interpret it at least in part in that way without further careful explanation on my part. Instead it is to point out the range of apparent contradictions that appeared to lie within one individual who was closely involved in the delivery of a community-led project that aimed to encourage positive environmental change. The symbols of community (Cohen 1985) around which he identified were not based on carbon, climate change or sustainability, but rather were found in his neighbourhood and the connection he felt to Muswell Hill as a place. And his views were not isolated. Other volunteers interviewed in Muswell Hill and Blacon expressed similar views relating to their motivation for becoming involved in the respective projects, and the limited impacts they felt they would have. This raises an important question regarding the degree to which the idea of a low carbon community can mobilise individuals who are less engaged with their community, however they may relate to it, to make significant lifestyle changes towards more sustainable options.

### *5.4 They're different, but they're the same*

The key argument of the preceding sections is that in each study area the multiplicity of community described in Section 2.2 and acknowledged by practitioners in Chapter 4 was replaced by a narrow, instrumental construction created in DECC's image.

It is clear from the descriptions provided above that despite each project being structured very differently, practitioners conformed to the tried and tested approaches required of them by the LCCC (see Section 4.2). The focus on fuel-poverty alleviation in Blacon and the Meadows, and carbon reduction and carbon accounting across all three areas, together with the use of messaging based on variations of the save energy, save money discourse as the principal means of participant engagement match DECC's instrumental understanding of what a low carbon community is and what it can do.

The degree of instrumentality was shown to vary across each area, with the Meadows most strongly matching the understanding of community as a delivery mechanism for carbon reduction measures. Residents' involvement in the Meadows project was limited to receiving the solar PV panels and notifying the MPT of their meter readings in order that the FiT may be collected.

The Sustainable Blacon project engaged more widely with the area through the recruitment of local volunteers and the 150 BEMP households. Their involvement was suggestive of the idea of community being brought into being through engagement in a shared endeavour (*cf.* Suttles 1972); however participants in the project clearly represented a minority of the 16,000 Blacon residents. And, further to that, participation dropped over during the course of the BEMP to ninety-seven households by the time it ended suggesting that whatever brought them into the project was not a strong enough motivation to keep them there.

The Muswell Hill LCZ, with its artificially created boundaries, managed to reach nearly all of the 840 homes within it through the volunteers recruited to deliver the GHM. Involvement in the GHM required little more than being at home when a volunteer came knocking, and subsequently agreeing to have some small-scale

modifications made to their homes. In that context it clearly also matches DECC's understanding of the role of community.

Across each area practitioners spoke of the importance of the save energy, save money as a means by which to engage with residents, yet also spoke of how it was not what motivated them to set up their projects. Yet if it was not what motivated them, why should it motivate others? As illustrated by the Muswell Hill LCZ steering group, motivations for participating in projects like those described in this chapter have their own multiplicity. Yet these were reduced to the simplistic assumption that individuals would engage in a community project on the basis of potential individual financial gain. The strongest challenge to this assumption came from the experience of practitioners in the Meadows who struggled to give away the solar PV panels that were the focus of their project.

Despite each project area focussing on a save energy, save money discourse the majority of interviewees expressed a range of alternate motivations for participating. These ranged from concerns over climate change and a desire to 'do something about it' (Participant-Blacon) to a number of interviewees whose involvement was based on a sense of obligation or duty towards the area in which they lived in order to 'put something back into the community' (Participant-Blacon).

While some interviewees suggested that their participation must have resulted in saving energy through raised awareness of how they were using it, very few spoke of monitoring it continuously throughout the project. Perhaps most tellingly of all given each project's focus on saving money was that none of the interviewees spoke of having made significant financial savings as a result of their participation, or of having attempted to monitor if they were doing so.

The Muswell Hill LCZ had the smallest geographical area of the three study areas. It used a number of marketing techniques such as the In the Zone newsletter and advertising banners along Muswell Hill Broadway to advertise its presence to both residents and non-residents alike, yet had managed to generate limited awareness of its existence. During research trips to the LCZ I would frequently stop passers-by on Muswell Hill Broadway to ask them their views on the project, and in nearly every case they were not aware of its existence. The majority of LCZ interviewees were also unaware of the goal of achieving a 20.12% reduction in carbon emissions by 2012, nor had seen or were aware of any of the material measures installed such as the solar panels on local schools. The extent of their involvement in the LCZ project appeared to go no further than installing measures as part of the GHM. A lack of wider awareness of the respective LCCC projects was also found in Blacon and the Meadows. This serves to highlight the partial, narrow nature of community in each project, together with what Rose (1996) describes as the need for people to be made aware of their allegiance to such communities in the first place.

In summary, the majority of interviewees' engagement with the respective projects had little, if anything, to do with the idea of it as a low carbon community. Yet nearly every interviewee suggested that the wider area in which the projects were based would have a more positive image as a result of the LCCC. For example the solar PV panels in the Meadows were seen by many interviewees as a visible symbol of positive social change occurring in the area.

This section has shown that in each study area the low carbon community in question was narrow, partial and constructed in DECC's image according to a set of pre-defined criteria as set out in the LCCC application form and guidance notes. By

combining a focus on small-scale behaviour change and technological solutions aimed at improving energy efficiency with variations on a ‘save energy, save money’ discourse the three study areas appeared to offer little different to that which has gone before in governing encouraging environmental change (discussed in Section 2.1). In the following section I move on to discuss what effect this had on participants in the respective study areas.

### *5.5 Overcoming social dynamics: the* **real** *low carbon communities challenge*

Each project area used a rationalist understanding of human behaviour in an attempt to encourage a wider commitment and connection with saving energy as a community-level concern. The provision of information and the incentive of saving money were used to encourage householders to participate in programmes that would alter their behaviour towards energy efficient low-carbon lifestyles; however limited evidence of such changes were found. Two factors appear to have been particularly significant in this. First, participant’s sense of connection was to the area in which they lived and not necessarily to the respective LCCC project. As a result, and as shown most strongly in Blacon, people were willing to participate as part of a public show of support for the project, yet beyond that made little or no change in their behaviour. Secondly, in each study area community was not used as a medium for social learning or devising new social norms towards lower carbon lifestyles. Social dynamics within the household and the social acceptability of talking about carbon, energy or climate change beyond it were not addressed by any of the projects.

For the few interviewees across the three study areas who spoke of monitoring their electricity usage and attempting to alter their behaviour, social dynamics within the household proved difficult to overcome. This led to disagreements over what should constitute normal behaviour within the household,

with one parent from the Meadows describing the difficulties of trying to monitor household energy usage as follows:

> *Respondent*: I also do try and wash, do me washing in the daytime and I've recently bought a dishwasher, and I try and say to my children charge your phones in the daytime….
>
> *Interviewer*: Right.
>
> *Respondent*: Which then they let me know it's a bit impossible Mum because they're obviously out at work and at school and when I'm not here, when... they have their phones with them so... but I try and charge as many things as I can in the daytime.
>
> *Interviewer*: When you've got the sun charging it?
>
> *Respondent*: Yeah that's right.

Despite her understanding of the daytime as being the appropriate time to make use of the electricity provided by the solar panels, and her encouragement of her children to do the same she went on to state:

> *Respondent*: Me personally I think I try but the children don't.
>
> *Interviewer*: Right. Do you not have the ability to set the rules?
>
> *Respondent*: Well they're always leaving lights on all the time; put the washing machine on with, with half loads and… whereas I'd rather wait until I get a full load and wash in the daytime like I say rather than when the sun's gone down, and sometimes me and my daughter do have little arguments about it but yeah.

What counted as normal behaviour for the mother – only putting full loads in the washing machine, not leaving lights on all the time and using equipment when the sun was shining – did not form part of a shared understanding of normal behaviour for her children. This is an important insight to gain from such projects as during the installation process for the solar PV panels recipients were provided with

information on how to modify their behaviour in order to make the best use of them – in other words trying to reconfigure the user to match the technology. Yet if this reconfiguration of what constitutes normal behaviour does not extend to others within the household the benefits of such technologies in reducing energy consumption (although in this instance it was framed as a reduction in costs, with the carbon savings being an almost unspoken secondary benefit) may well be limited.

This example is illustrative of similar conversations held with interviewees across each of the study areas. While the context may have differed, the end result was the same in that not all members of the household were altering their behaviour towards low(er) carbon living. One Blacon resident spoke of how, in his words, energy was being ‘misused’ in his home as a result of other family members whose behaviour did not match his own. He explained that as a result of other householders leaving televisions turned on, never turning lights out, constantly using the microwave and taking long showers he had been unable to meet the BEMP goal of reducing energy usage by 20%. He described feeling powerless to change the situation, and felt the need to explain to organisers of the BEMP what he saw as his very personal circumstances as a means of justifying his inability to contribute towards achieving their goals. He had known the project organisers for some time as a result of volunteering for earlier BCT projects, which could explain his willingness to speak with them about his situation. However what became clear during the interview was that he was not having similar conversations with other BEMP participants. He said:

> ‘I’m probably the only one…I won’t say its unique, but probably the only one who can’t control the energy usage because of other people really, but there we are…’
>
> (Participant-Blacon)

He had lived in Blacon for many years and knew many people living there. He also spoke strongly of his belief in community, and of Blacon as an example of it. He had attended nearly all of the BEMP meetings over the course of the year and described his experience of the program in positive terms. Yet whatever conversations he was having at the meetings – or indeed beyond them - they were not about what was happening within either his or other people's homes in terms of energy usage. He was not alone in his comments, variations of which were made by many other interviewees across each study area. The key point to emerge from the interviews was that for many people talking about energy usage was considered an inappropriate topic of conversation within the framing of a domestic context (*cf.* Goffman 1974; Moisander and Pesonen 2002; Hargreaves 2011).

### 5.5.1 We don't really talk about that…

Only one interviewee from the Muswell Hill LCZ expressed financial saving as their primary reason for participating; and that was based on his shared experience of living through the winter of 2011 with two flatmates in what he described as a very cold and expensive property. He explained his participation in the GHM as follows:

> 'Well we find living in an old property that we spend an absolute fortune each winter on bills, it sky rockets, and it is quite a concern that I would imagine that about 80% of whatever we are pumping out of our radiators goes straight out the window as it is a really, really old property. So they kind of sold it to us that the insulation would obviously save us money and the environmental issues and stuff etc. We are all young working professionals and we try to do our little green bits every now and again.'
>
> (Participant-Muswell Hill)

Expanding further on the 'little green bits' he went on to explain:

> 'The primary motivation behind it was the financial I would imagine because it was incredibly expensive last winter having, as I said, pumped out all this energy and then secondary to that I would imagine it was the environmental issues, just realising that if we are going to do something about it then basically wasting money and using up energy that we shouldn't really.'
>
> (Participant-Muswell Hill)

His overall experience of the project was positive, and he could see the potential financial and environmental benefits as a result of participating. However despite speaking of an atmosphere reminiscent of 'living in the 1950s' in the street in which he lived and where he counted most of his neighbours as friends, he had only spoken about the GHM to his immediate upstairs neighbour as 'the situation never really arose' to talk about it with anyone else.

Working on an individualist understanding of human behaviour this response is perhaps understandable – after all if his primary motivation was based on the financial benefits he would accrue why should he talk to anyone else about it? However it perhaps speaks to a larger issue with the way in which the Muswell Hill LCZ was framed in that his response to a project that targeted him as an individual was as an individual – in much the same way as those involved in the Meadows project. While he felt a connection to his immediate neighbourhood as a community, his connection or identification with it as a low carbon zone was limited at best.

What is interesting to note; and the principal reason for including a discussion on someone who represents a minority in terms of his stated motivation for participating in the project, is that his reluctance to share his experience of the GHM was shared by other interviewees whose participation was motivated largely by environmental concerns. Perhaps unusually for a study based in a relatively small geographical area, three of these interviewees were also involved in carbon reduction

projects in their respective workplaces. Despite sharing largely positive experiences of participating in the GHM each of them spoke of the difficulties they experienced in trying to talk about it with other people they knew in the Muswell Hill LCZ, compared to the relative ease they felt when speaking with work colleagues about the workplace projects they were involved with. This was despite the fact that each of them spoke of feeling connected to Muswell Hill as a community and of knowing a number of their neighbours. For example, when asked if she had been sharing her experience of being involved in the GHM with anyone else she knew, one of the three replied:

> *Respondent*: No, I haven't, again because my involvement isn't that, that big, you know, I, because I haven't insulated my house and stuff, so, I feel it's not, I feel it's a good thing to do and to be involved in, but it's not, I wouldn't, I think I don't really qualify for a, you know, going, going around and, I don't know, it just feels, you know, I feel self-conscious. It feels like I'm not doing enough to actually, to really go on about it.
>
> *Interviewer*: OK.
>
> *Respondent*: I mean it's, it's kind of a, yeah, I mean obviously I, I would like other people to, to do their part as well but, yeah, I just haven't got a lot to show at the moment, do you see what I mean, it's, I've mentioned to a few people in, in Muswell Hill who are not in the zone but they just went 'Oh, ok', you know, that's [LAUGH] yeah.
>
> *Interviewer*: So do you, do you almost feel that, that, and correct me if I'm putting words into your mouth but it's, because you're not doing what you consider to be enough, then you don't feel able to talk about it with other people very much?
>
> *Respondent*: Yeah, well I just don't know what to say, you know, if I say 'oh, I, I recycle and I've, I've got a, a different shower head now, I just don't, I just, maybe I'm afraid that, that it sounds ridiculous, you know, I just, I would like to say that I've done this and that but I haven't, you see, so, yeah it's difficult, I mean we're, we're quite good at work anyway with, you know, with switching our stuff off and everything so, and I'm trying to remind people to do that, so I do it in a more work related way, but I don't really bring my, my private life into this...

She went on to explain how within her work environment she was trying to be a strong advocate of the carbon reduction project running there where she felt comfortable encouraging colleagues to switch lights off and not print paper unnecessarily[19]. In the social context of her workplace, conversations in which she attempted to influence others behaviour were considered appropriate, whereas in her private life this was not the case as she felt that the changes she had made to her lifestyle were not sufficient to allow her to challenge others over their behaviour. Encouraging others to 'do their bit' would appear therefore to be a socially constrained endeavour that is appropriate in some contexts and not in others (*cf.* Blake 1999).

A number of Blacon interviewees described a similar reluctance to share their experience of the BEMP. For example one interviewee described having participated out of a desire to learn how to save money, and that she had made several behavioural changes to her domestic energy usage. This included washing her laundry at a lower temperature, switching to showering rather than bathing and now not only never overfilling the kettle but also wherever possible standing next to it as it boiled so as not to forget about it and have to do it all over again. She also spoke of her concerns over climate change and in particular the impact it may have on her children and grandchildren. Having lived in Blacon for most of her life she knew many people in the area, felt a strong connection to it as a place and spoke at length about feeling part of a community there. Yet despite her positive experiences of the BEMP and her longstanding relationship with Blacon she felt uncomfortable discussing energy or climate change related issues with other people she knew there:

[19] Although what counts as 'unnecessary' is of course open to personal interpretations as well.

> 'I'm a bit worried about being referred to as a crank, you know, if I start going on about things like that. But I don't think enough people take enough notice of it.'
>
> (Participant-Blacon)

She explained this reticence to speak with other people about the BEMP as being in part because she did not see herself as an influential person capable of engaging them on the topic, yet went on to describe how in her work context she was having conversations with her employers questioning the need for lighting to be left on continuously. From the perspective of this particular interviewee fears about being referred to as a crank were also clearly context dependant.

Interviewees' views on climate change, along with how they thought others in the area might perceive it, were also explored as part of the interview process. Reflecting the growing public awareness of climate change (Corbett and Durfee 2004; Lorenzoni and Pidgeon 2006; Whitmarsh *et al.* 2011b), every interviewee had an opinion on the topic – ranging from the sceptical to the alarmist – and was able to speculate on how other people might perceive it. Yet none of them spoke of having conversations with other people regarding climate change. For example, a participant in the Meadows project (jointly interviewed with his wife) described how having had his solar PV panels fitted a number of his neighbours and other passers-by knocked on his door to ask him what they were and how he had acquired them, with several of them subsequently applying for and receiving panels through the project themselves. Yet the conversations he was having with his neighbours were restricted to how much money they were saving him and did not incorporate the renewable energy or carbon saving aspects of the panels as he considered these to be inappropriate topics of conversation. This was despite the concerns he and his wife expressed over the

threat they perceived climate change posed, and the potential role they saw solar panels playing in mitigating that threat. When I asked them whether they thought their neighbours might share their views on climate change they responded:

> *Respondent*: Everybody knows it's happening don't they?
>
> *Respondent* 2: Everybody knows it's happening because you see so much of it on the television, so I assume that half of them was most probably thinking about it, do you know what I mean, at the end of the day coz it's not just about making money at the end of the day is it, it's about the environment.
>
> *Respondent*: Doing your bit.
>
> *Respondent 2*: Doing your bit to save whatever, so I hope, I hope they do know.
>
> *Interviewer*: But you've not had those conversations with them?
>
> *Respondent 2*: No, no.
>
> *Interviewer*: Why's that just out of…?
>
> *Respondent 2*: I had, I had… well I ain't got a clue really.
>
> *Respondent*: I don't think it's the sort of thing the Meadows people talk about is it?
>
> *Respondent* 2: Well I don't think it's the sort of thing everybody talks about until it's too late, that's the only problem.

Far from being something people in the Meadows do not talk about, it was something very few people interviewed for this research talked about with other people at all. Climate change was, in effect, the elephant in the room (Zerubavel 2006; Norgaard 2006, 2011) of the LCCC. And depending on the context in which the conversations were taking place, so too were energy and carbon. The appropriate presentation of self (Goffman 1959) within the framing of the domestic and work settings was shown to vary markedly for many interviewees as they sought to answer

the question of 'what is it that's going on here?' (Goffman 1974, p. 8). The answer that many of them arrived at within the domestic setting was that it was nothing to do with climate change, energy or carbon, whereas in the work context it occasionally was.

### 5.5.2 I wasn't being as good as I thought…

A number of interviewees were less reticent in speaking with others about energy issues; however their championing of the issue stood in contrast with the way they explained certain patterns of routine behaviour within their households. For example the keen rambler who had lived in Blacon for many years and shared similar positive experiences of the BEMP as other interviewees. She explained that as a result of the project she felt more confident talking with other people about how to go about saving energy, and importantly that her participation gave her a way to introduce the topic in a way that she previously felt unable:

> 'I'll start off the thing by saying something about the meeting we went to, you know, like the last one we went to telling everybody about what a lovely meal we had, but that starts it off and that gets me then into being able to sort of preach if you like [LAUGHS] for want of it, but I mean previous to that it's how do you start a conversation? You can't just suddenly say however good the friends are 'Are you saving... are you trying to reduce your carbon?'
>
> (Participant-Blacon)

Describing herself as having always been environmentally conscious she then went on to explain how she was 'not being as good as I thought' as a result of keeping her bedroom window open year round to allow air to circulate and having to re-boil the kettle regularly as she was prone to putting it on and then forgetting about it whenever she made herself a cup of tea.

What is interesting to note is that her environmental consciousness was based on her connection through being a rambler with the outdoor environment, and not on an awareness of issues surrounding domestic energy usage. Fresh air, a valued part of her life as a rambler, was routinised as part of her domestic setting despite, or perhaps because of, her stated environmental consciousness. Through her involvement with the BEMP this appeared to have altered as she went on to describe having made a number of behavioural changes at home as a result of her involvement - including keeping her windows closed.

Interviewees in other areas expressed similar contradictions between their stated position on the environment and their behaviour at home. For example the interviewee who described herself as having ‘always been involved in green issues’, a longstanding member of Greenpeace and Friends of the Earth, and someone who did everything she possibly could in the house to save energy. Yet having lived in her house for over twenty years she had only recently had loft insulation installed and started to become ‘much more obsessed about turning off the lights when I leave the room and that sort of thing’ (Participant-Muswell Hill), both as a result of her involvement in the Muswell Hill LCZ.

The key point behind these examples is to highlight the difficulty in addressing the value-action gap (Blake 1999) when the individual’s concerned do not see the gap existing in the first place. In common with a number of other interviewees they clearly held the environment as a value, but at a scale beyond the boundaries of their neighbourhood. It took involvement in the respective LCCC projects in their area to highlight the longstanding contradictions of their behaviour and encourage them to act in ways that they perceived as being more environmentally friendly.

### 5.5.3 Personal carbon-offsetting

For other participants' similar contradictions existed between their stated understandings of energy as an issue in need of addressing, whether within the domestic context or the much broader contexts of energy security and climate change, and their description of normal behaviour within their household. For example the Blacon participant who recounted how one of the more interesting pieces of information he had learnt from the BEMP was that if every house in the United Kingdom switched one inefficient light bulb to a low-energy one it could save enough energy to power a football stadium[20]. Yet despite recognising they were energy inefficient, he went on to explain his purchase of a stockpile of tungsten bulbs before they were withdrawn from sale as follows:

> 'I bought a load when Woolworths was closing down. [laughs] So it's a case of, you know, there's savings to be made but there's, you know, savings that are costed against other, you know, the saving on one is a cost in another column if you know what I mean?'
>
> (Participant-Blacon)

Despite describing himself as being very careful to avoid wasting energy as wastefulness in any form was, he claimed, a significant issue, he had performed a series of mental calculations by which he could justify the continued use of what he knew to be an energy-inefficient technology. These calculations were based in part on having his loft insulation topped up, purchasing other energy efficient equipment such as new A-rated televisions and using some low energy bulbs 'in places where we tend to put a light on and leave it on'.

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[20] Although how big a stadium and for how long it would be powered were not explained, further highlighting the abstract nature of saving energy – just how much energy does it take to power a football stadium, and how is it a useful analogy to encourage the uptake of low-energy light bulbs?

Similar examples came from each study area, with the following example from the Meadows providing an alternative view of the role of the solar PV panels and the energy use associated with them:

> ‘It [the solar PV panels] may be offsetting the use of my motor car, which I don’t use a lot, but when I do I drive it quite quickly. I’ve got the electricity coming in through the roof but I’m heavy footed with the petrol.’
>
> (Participant-Meadows)

The quote is interesting in that the interviewee was keen to stress that while she drives her car in what others may consider an inappropriate way by being ‘heavy footed’ she didn’t do it very often, and further to that her solar panels offered a way of offsetting her behaviour. She was one of the few interviewees to talk of behaviours involving energy usage beyond the household; however her principle focus remained the influence of the solar PV panels on her domestic behaviour:

> *Respondent*: I took to very often having the lamps on so they were on when I came home, if I came home in the dark, you know, but I’m meaner about that and I switch lights off and make sure that there’s nothing sitting around on standby with a little light going, you know, so yes, I do work harder at saving electricity.
>
> *Interviewer*: And that’s as a result of having the panels?
>
> *Respondent*: Yes.
>
> *Interviewer*: Why is that? What’s different then about having the panels that makes you behave towards energy in that way?
>
> *Respondent*: Well every time I come home and I see the panels it makes me think about it.
>
> *Interviewer*: In a way that previously it wouldn’t have?
>
> *Respondent*: Yes, it reminds me.

Where other interviewees spoke of how rapidly the panels became normalised and no longer directly influenced their behaviour she related to them in a completely different manner, perhaps as a result of being the only person interviewed who had contributed fifty-percent of the cost of the panels. Far from becoming normalised, the visibility of the panels was a constant reminder to her to behave in what she considered a more energy conscious way (*cf.* Hargreaves *et al.* 2010, 2013). Yet despite showing signs of energy taking on a new form of meaning to her, and the solar panels appearing to have played a direct role, an alternate material consideration was acting as a constraint on the extent to which she was willing to make further changes. When asked what other energy efficiency measures she had installed in her house she replied:

> 'I have loft insulation. I have cavity wall insulation. I haven't got it double glazed because I've got to the stage now where I probably can't afford to have the sort of double glazing I would like, which would be wood, not this wretched plastic stuff. I'm very anti-plastic.'
>
> (Participant-Meadows)

Aesthetics were a clear constraint on the extent to which she was willing to make energy efficient changes to her home. In short, she did not like how plastic double-glazed windows would have made her property look. Sharing these aesthetic concerns were members of the Muswell Hill LCZ steering group, who also objected to the use of plastic double-glazed windows as part of their project. Solar PV arrays on commercial buildings and schools were considered suitable for the area; however double-glazed windows on local housing within the Muswell Hill conservation area were not. Several Muswell Hill LCZ interviewees were equally negative regarding

double-glazing, suggesting limits to the extent they would be willing to modify their properties as well as their behaviours to offset the carbon impacts of their lifestyle.

Other interviewees saw the issue somewhat differently, recognising what they saw as the contradiction in having various low-carbon technologies installed at the same time as living in older, thermally inefficient housing. For example the Meadows resident and his candid appraisal of the value of having solar PV panels on his roof while living in a single-glazed property: ‘I think it’s pathetic, it’s a stupid waste of time, what we’re saving is going out the window and out the doors’ (Participant-Meadows).

The interviewee was grateful for the panels as they were contributing what he considered to be a significant financial saving to his household. However his heating costs had not decreased, nor had his frustration at living in what he knew to be a thermally inefficient house. He and his wife had also received and were following the advice to do as much as washing, cooking and cleaning as possible during the daytime. He was also very positive about the planned role of the FiT as a mechanism for financing future community projects in the Meadows. Yet at the same time he expressed a strong awareness of the contradictions of having several thousand pounds worth of solar PV panels on his roof that had done nothing to solve the problem of heating his home.

To conclude, this section has sought to highlight details of what I have termed the *real* low carbon communities challenge: overcoming the social dynamics and patterns of what constitutes normal behaviour within households. These can be used to explain, at least in part, the apparently limited behaviour change described by interviewees in the three study areas. It has suggested that there are limits to the ability of a low-carbon community as constructed by the LCCC to change behaviours

toward low(er) carbon lifestyles. Reflecting on her own experience of the LCCC, one Meadows interviewee described these limitations as follows:

> 'They're [her solar PV panels] stuck up on the roof, you don't think about them, once they're there you kind of almost forget they're there because, you know, they're not intrusive in any way, they don't... unless you actually look at your electricity meter every day, you don't, you don't really... there's nothing really to [PAUSE] for you to sort of see that they're there, you know. […] I think unless you come to have some sort of consciousness about the way you live anyway, I don't... I think they could limit, they could have a limitation as to how much they change people's lifestyles, yeah.'
>
> (Participant-Meadows)

The suggestion within her words is that the impact of the panels and any heightened awareness of what they may signify whether it is climate change, renewable energy, carbon emissions or saving money are likely to be limited as their presence become normalised. On the evidence of the interviews conducted in the Meadows this rings true, in that having sparked initial interest and conversations among some residents these quickly stopped. Further to that point, the limited evidence of changes in behaviour as a result of the solar PV and the manner in which that change was constrained by social dynamics within the household also suggests that the panels may have limited long-term impact on reducing domestic carbon emissions.

Perhaps the most striking aspect of the comment, and one that rings true across each of the areas studied for this research, is that beyond small-steps behaviour changes such as turning the thermostat down no attempt was made to change or even question the way people live their lives. Each project, reflecting DECC's understanding of community and its role in tackling climate change, delivered small scale behaviour change and technological solutions aimed at

improving energy efficiency within households. Each project also based their engagement model around a 'save energy, save money' discourse that was shown to have little impact on participants – not least because for many of them it simply was not true.

### *5.6 Discussion and Summary*

Despite the different delivery models employed in each area the way in which participants responded to the respective LCCC projects shared a number of common characteristics that, I argue, challenges the extent to which community offers a potentially useful alternative to that which has gone before in terms of tackling climate change.

Participants' engagement with the respective projects had little to do with the idea of it as a low carbon community, nevertheless nearly every interviewee did relate to their immediate neighbourhood and wider environment as either a community or place. The degree to which that connection was based on actual social relations varied across the sites, but what was common to them was the extent to which talking about personal energy use with other people was very limited, and often only in terms of saving money, as to do so in other terms was considered inappropriate. Further to that, and also common across each site, was the role that social dynamics within the household played in shaping how energy was used, or indeed misused as some interviewees perceived it to be. Combined, these points suggest the potential limits of community to offer much different to that which has gone before it in generating the types of lasting lifestyle change that projects of these types were designed to facilitate – particular when it is applied in an instrumental form as in the case of the LCCC.

Individual awareness of energy and climate change issues was high across the three areas studied, but sharing that awareness and any associated concerns was shown to be context dependent. People clearly felt uncomfortable talking about the issues in certain contexts – most notably in their respective neighbourhoods with people they knew socially. Yet in other contexts, such as the workplace, it was considered perfectly acceptable to chastise people for leaving the lights on and printing documents unnecessarily. However the nature of these conversations was always in relation to energy, and not climate change. This is an important insight to draw from this research, particularly in light of the role it is suggested community can play in changing social norms towards low(er) carbon lifestyles (e.g. Jackson 2005). How are social norms to be shaped if people do not come to a shared understanding of what low carbon living entails? And why, if awareness of climate change is high, don't people talk about it?

The preceding points are of particularly relevance given the way in which the projects did little to question or alter existing patterns of normal behaviour within participants' households. For example the numerous examples of the rationalising of lifestyles (*cf.* Hobson 2002) in which individuals were able to justify the boundaries of any behavioural changes they were willing to make went unchallenged by each project. The stockpiling of tungsten bulbs, the need to fly for work, or having lengthy hot showers had all been weighed up against other behavioural modifications and considered appropriate to continue with.

Social dynamics within households were also shown to have limited the impact of any behavioural changes. Normal behaviour for one householder was shown to not necessarily match that of others. This is another significant point for those advocating community as an agent of change. If participation in a community

project, in whatever form it may take, is limited to only one or two members of each household how can other members be encouraged to change? The community project may represent the front stage in which lifestyle change is being advocated, but the backstage that exists within households is hidden from view and largely inaccessible. To stretch the Goffman analogy still further, those not involved in the performance on the front stage may well ignore the script altogether.

At this point it is worth reflecting on the fact that the Blacon, Meadows and Muswell Hill LCZ projects received nearly £1.2 million in funding between them yet only managed modest reductions in carbon emissions. And it can be argued that even these modest reductions were quantified using methods that make questionable assumptions about the carbon saving impacts of how people respond to information and new technologies installed in their homes. Given that level of funding, and the limited success in reducing carbon emissions gives rise to the following possible conclusions.

First, the projects simply need more time to achieve their goals – social change takes time and the LCCC did not provide them with enough of it. If the LCCC had its origins in the Low Carbon Transition Plan which has 2050 as its end-date, why were the LCCC communities given less than two years to show what they could do? Second, they were all doing something wrong in how they were trying to engage with potential members of their would-be low carbon community and therefore need new models to try. Variations on both rationalist and social-psychological based understandings of human behaviour have been shown to have had limited impact. This is despite the high awareness of climate change among participants in the respective LCCC projects and the perceived need to take action to address it (*cf.* Corbett and Durfee 2004; Lorenzoni and Pidgeon 2006; Lorenzoni and

Hulme 2009; Whitmarsh *et al.* 2011b). This adds further empirical evidence to existing studies showing this to be the case (e.g. Hinchcliffe 1996; Collins *et al.* 2003; HM Government 2005; Owens and Driffill 2006) and contributes to theoretical debates drawn from sociology (e.g. Webb 2012), and in particular social practice theory, that suggests they always will be (e.g. Shove 2010, 2011). Third, the ability of community to tackle climate change as the task is understood by DECC may in fact be limited. As this chapter has shown, community can offer a mechanism for change for some people; however as the degree to which members bind their identity to the goals of a low carbon community is limited by other factors including social dynamics within the household and what constitutes patterns of normal behaviour beyond it, the potential for significant low-carbon lifestyle changes may well be modest at best.

Individuals have taken action – albeit limited in some cases, and not necessarily directed towards lifestyle change. This was most obvious in Blacon where people appeared to hold community as a value and were willing to participate in the BEMP as a means by which to publically express it; however this did not translate into significant lifestyle changes. Tellingly, the BEMP resulted in a minimal reduction in energy usage among participants, with some participants recording an *increase* in energy usage. The Muswell Hill LCZ claimed a reduction based on questionable carbon accounting methods that made a series of assumptions regarding the carbon saving potential of installed measures, and the Meadows project did not monitor carbon savings at all. Not only were the projects not challenging people's lifestyles, or the broader systems of provision that support them, they were also not providing evidence in a form relevant to DECC (see Section 4.3) towards the

LCCC's stated goal of helping government understand how to deliver the transition to low carbon living at the community level.

The dominant mechanism by which change was being encouraged was information based on variations on the save energy, save money discourse. Yet as this chapter has shown people have participated for a variety of reasons ranging from identification with place to being at home when someone knocked on their front door and offered them some free stuff – whether a solar PV array or shower-tap aerator (see Section 5.3). This is an important policy-relevant point to make as it challenges the simplistic assumption that an individual's primary motivation for adopting any form of low(er) carbon living is based on cost. It can, in fact, be far simpler, and have nothing to do with money; yet the resulting behaviour changes are minimal at best. Equally, and as shown in the Meadows (see Section 5.2), it can be far more complicated. Free solar PV panels and a guaranteed reduction in electricity bills proving an insufficient incentive for some Meadows residents.

As shown most strongly in Blacon, for many participants their involvement in these projects was a performance intended to reinforce an existing sense of identification with place rather than fulfil a utilitarian need to save money or identify with a low carbon community. As a result, the engagement with the symbols and meanings of the respective communities as *low carbon* communities was limited. It is in this way that the participants in the projects can be seen as performing community while tackling climate change just a little bit (*cf.* Norgaard 2006, 2011).

These are important insights given the role that the LCCC was originally intended to play in helping a range of stakeholders understand how to deliver the transition to low carbon living at community level. The evidence presented in Chapters 4 and 5 has shown that despite the LCCC distributing £10m of funding

between the twenty-two winning communities, they were constrained in their ability to offer anything other than a repackaging of the same 'tried and tested' behaviour change messaging in combination with the delivery of small-scale technological fixes. Of the three areas studied for this research, one recorded little reduction in overall energy usage, another quantified carbon reductions based on questionable methodologies, and the third did not quantify energy usage or carbon reduction at all. Chapter 5 highlighted the influence of social dynamics and patterns of normal behaviour within households as constraining factors on the ability of individuals to move towards low(er) carbon lifestyles. Yet these aspects went unrecorded by the official evaluation of the LCCC. As Chapter 4 detailed, the focus of the evaluation was on quantifying changes in attitudes, values and carbon emissions across the twenty-two winning communities. As a result the evaluation was unable to capture the influence in encouraging positive environmental change of the very thing it notionally set out to measure, community.

The LCCC appears therefore to have offered little to help develop an understanding of how to deliver the transition to a low carbon future at the community level. From these conclusions several questions emerge: What *did* the LCCC do? What was its purpose as a learning exercise? Was it serving some other unstated purpose within DECC? And finally, what was the role of community in the LCCC? It is to these questions that the thesis moves on to address in Chapter 6.

# Chapter 6 The Problematic Reality of Community in the LCCC

Chapter 4 argued that community, within the LCCC, was a multi-faceted concept subject to contested understandings regarding both what it is and what it can do. In particular, it drew out the contrast between the instrumental understanding of community held by DECC in which it is principally seen as a tool to be used to deliver a policy agenda based on carbon reduction and carbon accounting with the more normative understanding held by practitioners and community members of community as an entity based on identification with their local neighbourhood.

Chapter 5 argued that the principal effect of DECC's instrumental understanding of community was to require community practitioners to reproduce narrow, instrumental projects conforming to that image. Applied instrumentally, community did little to challenge or alter existing social dynamics with households and what constitutes patterns of normal behaviour beyond it, resulting in little or no evidence of positive environmental change having occurred.

This chapter seeks to build on those arguments by broadening the scope of enquiry to answer the question of what is the role of community in tackling climate change. The chapter questions what the self-declared 'test-bed' (DECC 2009, p. 1) of the LCCC was actually testing, and uses theories drawn from the literature on governmentality to argue that it was testing the ability of community to act as a means of governing environmental change from a distance. As the chapter will show, despite constructing and populating a series of low carbon communities, the LCCC achieved limited success - where success is defined in DECC's terms of tonnes of carbon saved or megawatts of energy produced as discussed in Chapter 4 - as a result

of the resistance of individuals within the communities to having their conduct channelled into particular forms of low(er) carbon living.

Viewed narrowly through the stated purpose of the LCCC it could therefore be interpreted as a failed experiment as a result of the resistance of community members to adopting the carbon-conscious subjectivity imposed on them. However the chapter will argue that another interpretation available from a governmentality perspective is that the LCCC served to reinforce the dominant neoliberal rationality that exists within DECC. Within this rationality individuals are constructed as passive energy consumers to whom market-based solutions based on improving energy efficiency provide the principal mechanism by which they can tackle climate change, rather than active citizens capable of making choices based on values, judgement and responsibility (*cf.* Slocum 2004; Oels 2005; Barnes *et al.* 2007). On that reading, the LCCC was in fact successful. Rather than challenging neoliberal rationality, the LCCC served to reinforce its contention that community is not capable of tackling climate change; and that the market, which may in turn appropriate community, is the only way forward. The chapter concludes with a discussion of the implications of this interpretation of the LCCC on the role of community in tackling climate change.

## *6.1 Conflicting understandings, competing roles*

As a case-study the LCCC presented a challenge as the central concept within it – community – was subjected to a large number of interpretations and applications that shaped what it was, what it could do, and how it was evaluated. These ranged from the instrumental understanding and application of community as a delivery mechanism for DECC's policy goals around carbon reduction and energy generation, to the subjective, emotional response to place and identity spoken of by community

members that for the most part has little or nothing to do with either carbon or energy (see Chapter 4).

Walker (2011, p. 778), writing on the role of community in carbon governance, recognises community as an actor with agency that 'can make a difference' and notes the contested, dynamic nature of the concept suggestive of 'the need to be open to a rather more problematic reality of community-based action than might be evident in policy and campaigning rhetoric'. The nature of the 'more problematic reality' of the institutional setting of the LCCC was regularly referred to by expert network interviewees, a number of whom noted with surprise that DECC had even contemplated supporting it. The majority of expert network interviewees associated with the LCCC stated that the way in which DECC came to do so was based largely on the efforts of one individual working on community-led policy making who managed to secure funding for the project. This way of working to develop and test policy was described as highly unusual and a weakness of the LCCC as from its inception:

> 'It's never had a level of policy support it's probably needed, would have benefited from needing. So it's never, the impacts of the Big Energy Shift - and I think this is typical of all public dialogue research, market research - its findings have never infiltrated the thinking of policy officials. So it's ended up as project that hasn't diffused through DECC's thinking, unlike say the Green Deal, which, you know, was Greg Barker[21] coming in and saying we're going to do the Green Deal now, we're going to start to think about the Green Deal.'
>
> (DECC Official)

The lack of infiltration of research findings to policy officials was further explained as a cultural issue within the civil service itself:

[21] Greg Barker is a Conservative Party politician and Member of Parliament for Bexhill and Battle. He was appointed Minister of State for Energy and Climate Change following the general election in May 2010.

> 'It's very clear in any public sector organisation, well any civil servant centred organisation in particular, the idea that the centre doesn't know all the answers is a complete anathema to how it's normally set up. So it's still set up as very expert based and everyone has to know what it is and pretend there's no complexity […] and so the idea that you'd engage with communities to learn from them was very, very counter-cultural.'
>
> (Expert Network)

What the preceding quotes highlight, and building on the arguments put forward in Section 4.1 in which DECC's instrumental understanding of community was highlighted, is that the LCCC existed in an institutional context in which its aim of helping 'government, local communities and a range of parties involved in the UK transition to greener, low carbon living understand how best to deliver this transition at community level' (DECC 2009, p. 1) ran counter to the way in which ministers, policy officials and civil servants viewed the department's role. This point was further illustrated during a conversation regarding the role of government in supporting the development of renewable energy via the feed in tariff scheme:

> 'It's [Government] investing lots of money in the feed-in tariff and it will know how many installations, how many megawatts of power that budget has developed and what percentage of the renewable obligation it contributes. What it won't differentiate is whether that was commercial or community, because actually the objective is to deliver renewable energy, it doesn't matter who, it matters what.'
>
> (DECC Official)

If the 'what' in the preceding quote is extended to include the delivery of energy efficiency measures to consumers, then meeting the 'challenge' of becoming relevant to DECC's policy goals becomes more difficult for community to achieve based on anything other than as a geographically bounded delivery mechanism. This is because considerations of the role of social interaction in uptake of either energy

efficiency measures or renewable energy technologies appear less relevant to DECC than quantifying the amount of gigawatts of electricity generated or tonnes of carbon emissions saved.

The key point is not to deny the importance or merit of DECC's role as an institution charged with the task of 'tackling climate change'. Rather, it is to highlight the difficulty that community had in making itself relevant to DECC's understanding of how to go about doing so regardless of the extent to which it may or may not be able to contribute. This point is further illustrated by the following quote from Greg Barker, the UK Minister of State for Energy and Climate Change, in which individualist understandings of human behaviour based on the principles of neo-classical economics are clear:

> 'I want the Green Deal to be the biggest home improvement campaign this country has seen since the Second World War…[…]…The Green Deal is different to previous energy efficiency policies as it removes the barriers preventing people from making those energy efficiency improvements. The biggest barrier is obviously cost.'
>
> (Barker 2011)

The Green Deal, first announced in August 2010, and officially launched in January 2013, aimed to:

> 'combine growth in the economy with a greener and more efficient way of using energy. It aims to reduce energy demand and carbon emissions while making homes warmer, saving consumers money and stimulating green recovery in jobs.'
>
> (Cabinet Office 2010)

What is interesting to note is that there is no mention of climate change within the rhetoric of the Green Deal. Individuals are conceptualised as 'consumers'

or 'customers' to whom market-based mechanisms are seen as the appropriate means of encouraging change, rather than 'citizens' to be engaged in participatory processes to arrive at shared understandings of both the problem of and potential solutions to tackling climate change. Within the policy context of the Green Deal, findings from the LCCC evaluation serve as a contribution to the 'consumer insight evidence base' (see Section 4.3). Community is viewed simply as an aggregate of individuals contained within a geographical area. It is, in effect, just about numbers. A view echoed by a number of members of the expert network, and exemplified by the following quote:

> 'I think community moved from being something social as to then being something quantifiable, like community being social, interactive, to now community meaning more than one person, you know, it being just about numbers.'
>
> (Expert Network)

Yet as shown in the literature review presented in Chapter 2 and in the empirical evidence presented in Chapters 4 and 5 of this thesis, the biggest barrier to individual change is not necessarily cost, nor is community just about numbers.

The removal of the social, or rather the lack of acknowledgement or understanding of the role of the social aspects of community, was evident in the 'like with like' evaluations of the LCCC (detailed in Section 4.3). The statistical construction of community collated survey data and information on the LCCC communities via conversations with practitioners acting as proxies for the community members themselves in order to create the 'fictive space' (Murdoch and Ward 1997) of a low carbon community. In doing so the nuance of community referred to by one interviewee was removed, leaving the place-based specificity

spoken of by the community members themselves (see Section 4.5) unable to be captured.

Once again, the point is not to query the ability of community to 'tackle climate change' or not; but instead to highlight that the mechanisms by which the LCCC was evaluated served to generate more fodder for the analytic universe (Power 1994, 1997) that failed to take adequately into account the differences between the projects and what role this may have played in their outcomes (*cf.* Middlemiss 2008). Creating statistics as a measure by which to define and evaluate communities may serve DECC's policy goals and fit their understanding of what counts as evidence, however as Harper notes:

> 'Defining community one-dimensionally allows us to measure comparable elements, test specific hypotheses, and thus extend or criticise social theories. But doing so confuses a definition reached for expedient reasons with a concept, built from the ground up, which takes into account the points of view of community participants.'
>
> (Harper 1992, p146)

While the evaluation approach adopted by the LCCC may have made data more accessible and comparable it failed to capture that which may have emerged from an inductive approach grounded in the views of those purported to be part of the community in question. It is these points of view that were widely recognised by members of the expert network to be under-represented in the evaluation. Ironically, and as Section 4.2 indicated, several of the LCCC projects did not always take account of the points of view of community participants either, instead adopting an instrumental, top-down approach mirroring that of DECC. That they managed to do so in spite of an application and selection process that required evidence of engagement plans for the wider community suggests the extent to which the entire

process was more about the successful presentation of a front (*cf.* Goffman 1959) than the existence, whether real or imagined, of a community. For example one local group:

> 'decided to focus our efforts on two strategies that might get us into sort of more substantial [carbon] savings. One was to work with the council because we recognised that the council is influential and also a big carbon user in Haringey and the second strand of our thinking was to apply for grants as and when they became available. And our timing was brilliant because two grant schemes came along that required joint work between the councils and community groups.'
>
> (Practitioner-Muswell Hill)

The group successfully applied to both the Greater London Authority Low Carbon Zones scheme and the LCCC. The key point being that the role of community was as a mechanism through which to gain funding. Yet it was also something that had to be actively constructed around a set of application and selection criteria in order to do so regardless of the extent to which the applicants were or were not either representative of or engaging with the wider community.

In summary, the key distinctions between the competing roles of community within the context of the LCCC outlined in this section can be described as between those which appropriate community as a means by which to achieve policy or personal objectives that may or may not be representative of the people to which they are directed, and those which use community as an orienting device by which to generate a sense of identity and belonging to a particular area (*cf.* Blackshaw 2010).

Two further points to come out of this analysis are that appropriating community as a delivery mechanism does not require the participation of community members or accommodation of their viewpoint; while as an orienting device attachment or association with an area as a place is more significant than with

carbon, energy or climate change. In other words, DECC and certain community practitioners may attempt to construct a low carbon community around local residents who do not relate to the concept or respond to the framing presented to them. The answer to the question: 'What is it that's going on here?' (Goffman 1974, p. 8) may well be 'nothing of interest to me'. This would suggest a potential limitation to the area based, instrumental understanding of community as a delivery mechanism through which to tackle climate change, as individuals within an area may draw their own community boundaries in ways that run counter to the goals of those of the delivery agent. Perhaps the most telling aspect to draw attention to at the close of this section is from the quote that began it, namely the lack of policy support for the LCCC from its inception. In the following sections I set out a series of arguments that provide detailed evidence of why the LCCC lacked support from policymakers within DECC, and of how what little support there was eroded away over its two year duration.

## *6.2 Limiting the field of action*

Hanging side by side within the entrance to DECC's Whitehall offices in London are two posters. The first, set against a large black background signifying the void of space, shows a pair of human hands gently cradling the earth as if to protect it from damage. Above it is the heading 'Our mission: Power the country and Protect the Planet', with the tag-line below reading 'DECC exists to head off two risks: catastrophic climate change and a shortfall in secure, affordable energy supplies'. The imagery is clear: that of a 'fragile earth' in need of protection, with DECC assuming the role of protector. However mixed in with this construction of the world at risk is the need to provide secure, affordable energy supplies for the country. Rather than converging, the energy and climate change agendas can be seen to have

*merged* into one in the imagery and text of the poster (*cf.* Lovell *et al.* 2009): DECC is simultaneously setting itself up as a provider of security to the global community by saving it from catastrophic climate change, and the United Kingdom by providing secure energy supplies.

Securing energy supplies is addressed in the second poster, in which images of an offshore gas platform and the cooling towers of a coal-fired power station are combined with the text 'While in transition to a low carbon economy we will make best use of our oil and gas reserves and address nuclear legacy'; and to remind the viewer of DECC's wider purpose the tag-line 'Our mission: Power the country and protect the planet' is prominently displayed across the bottom. Once again, the imagery is clear: large-scale carbon-intensive energy infrastructure, carefully and appropriately managed through 'best use' practices as part of the transition to a low carbon economy (as set out in the Low Carbon Transition Plan) will keep the lights on and enable us to tackle climate change, with DECC assuming the role of provider and protector.

The posters send out a clear message: the earth is fragile and its energy resources bounded, therefore it requires regulating, managing and governing if we are to successfully transition to a low-carbon economy. The imagery also suggests that what is to be managed is energy infrastructure capable of generating hundreds of megawatts of energy on a scale relevant to DECC's goals as a regulator of the global climate and provider of the United Kingdom's energy supply. It is a techno-centric, managerialist framing of the issues of climate change and energy security in which DECC, as part of a broader global framing of the problem as set out by the work of the IPCC and others, assumes the role of regulator of the environment. People – whether as individuals or aggregated into communities or society – are the passive

recipients of the outcomes of this construction of the problem. Based on that analysis, the comment by a member of the expert network that 'You know, the LCCC was a very, very unusual thing for DECC to even contemplate' (Expert Network) certainly rings true. Within such a framing, communities will always struggle to make themselves relevant to DECC on DECC's terms.

Yet as Chapter 4 highlighted, the reason the LCCC did come into being was largely the result of one individual within DECC who was instrumental in securing funding for the project. Of relevance to the arguments being put forward in this chapter is that she was on secondment to DECC from the Sustainable Development Commission (SDC), an organisation set up under the Labour administration that 'held Government to account to ensure the needs of society, the economy and the environment were properly balanced in the decisions it made and the way it ran itself' (SDC 2011).

It is clear from its own mission statement that the SDC aimed to render the goal of sustainable development a manageable one, in much the same way as DECC aims to render the climate manageable, and as such both can be seen as operating as manifestations of green governmentality (*cf.* Luke 1999). One key area in which they differ however is in their interpretation of the role of community in achieving those goals. In its 2010 report 'The Future is Local', the SDC suggested that:

> 'Engaging communities in the development of their neighbourhoods will significantly increase the long-term benefits neighbourhood partnerships deliver. This can be achieved through increasing participation in retrofit programmes through simple word-of-mouth recommendations and inspiration from real-life examples (friends, family and neighbours); encouraging and enabling sustainable behaviour change through structured learning from trusted intermediaries and support groups; or the active involvement of communities in designing and managing programmes of works…[]…Involving the community can also save money.'
>
> (SDC 2010, p. 14-15)

The report argues that at neighbourhood scale:

- Engagement of residents can be secured through governance approaches promoting local ownership and high levels of take-up of retrofit measures most appropriate to each community and providing the supply chain and investors with a viable scale of project and structure of partner;
- Technical resource- and carbon- efficiency measures become feasible at whole-street and neighbourhood level that simply don't stack up at individual home scale, including most low-carbon/renewable energy technologies and transport;
- Access to private investment is increased as neighbourhood scale provides 'critical mass', enabling scarce public money to be more effectively leveraged.

(SDC 2010, p. 9)

The key difference between DECC's and the SDC's interpretation of the role of community is in the latter's recognition of the participatory role of community members. Therefore the answer to the question of how the LCCC came to be formed as an appropriate response to a problem of government is that it was through the introduction of the normative understanding of community as a participatory process held by the SDC staff member on secondment at DECC responsible for shaping the application and selection process. It was, in effect, a form of *resistance* on her part to DECC's problem framing of climate change in which individuals are the passive recipients of policy rather than active participants in shaping it.

What is clear is that the SDC also understood community as an instrumental tool through which to deliver 'the increasing priority of living sustainably' (SDC 2010, p. 8). The problem to solve was still one of individual behaviours – both of residents and investors - with community in the form of geographically bound neighbourhoods acting as the mechanism through which to do so. The neighbourhood thus became another instance of the use of community as a means by which to govern the population at a distance (Rose and Miller 2008), but one in

which the people living within its boundaries were considered to have a role in shaping its development.

Taking Dean's assertion that to govern is 'to structure the field of possible action, to act on our own or others capacities for action' (Dean 2008, p. 3), the LCCC as a form of governing at a distance presented a very narrow field of possible action to applicants. By controlling who received funding, the participation of community projects conforming to the understanding of the role of community held by originators of the LCCC was assured, thereby removing the possibility of alternate problem framings that challenged it from being acknowledged. In this way the LCCC winners were given a chimera of empowerment, when in fact they were simply implementing a policy-experiment devised by others in which they had little input into the decision-making processes behind its formulation, implementation or evaluation. The 'invited spaces' (Cornwall 2008) into which they were drawn allowed little room for community practitioners to shape the agenda, whether in the form that their prospective low carbon community took, or how it was evaluated.

The understanding of community as an instrumental tool of governing through which carbon reduction can be delivered is based on a particular understanding of how to manipulate it to achieve policy goals. Shifting the problem onto individuals to adjust their 'maladaptive behaviour' (Maloney and Ward 1973, p. 583) towards lower carbon lifestyles without any questioning of the broader socio-economic drivers of that behaviour does little to challenge the existing neoliberal paradigm contributing to the very problem programmes like the LCCC are allegedly addressing (*cf.* Maniates 2002; Webb 2012). By notionally devolving control to communities the LCCC reinforced the tropes of neo-liberalism in which the local scale is constructed as 'government free' and 'flexible, innovative and energetic'

(Moon and Brown 2000, p. 70); a supposedly autonomous space that is in fact subject to close control (Rutherford 2007). Constructing the LCCC around energy, or more specifically the equally abstract notion of carbon, reduced the possibility for alternative worldviews that pose challenges to the dominant framing of climate change from participating. Little or no challenge was made to existing patterns of consumption, it was about consuming ever-so-slightly differently instead, with energy demand remaining unchallenged (*cf.* Strengers 2012).

A notable exception within the LCCC Phase One winners to the reproduction of this problem framing was Lammas, an eco-village in Pembrokeshire in Wales. Through the use of permaculture and community-owned renewable energy projects designed to provide electricity to their community they were challenging, indeed changing, some of the systems of provision responsible for a significant percentage of greenhouse gas emissions. It was for this reason that the 'particularly controversial' (DECC Official) awarding of funding to Lammas becomes even more surprising, as does the inclusion of the following quote by a Lammas resident in the Interim Report produced at the half-way point of the LCCC:

> 'People will make radical changes to their lifestyles if they are empowered and supported to do so. The optimum driver in such transformation is not carbon emissions, nor the threat of climate change; it is the prospect of a more holistic lifestyle.'
>
> (DECC 2011, p. 31)

Lammas was excluded from the quantitative evaluation as, in the words of one of the programme evaluators, 'they have no community' (DECC Official) and was therefore unable to contribute statistically robust evidence to the evaluation process involved in constructing the official version of knowledge regarding the

LCCC. It is therefore surprising that a statement that posits such an alternative worldview to that of the LCCC found its way into the Interim Report. Radical change towards a more holistic lifestyle is not what the LCCC was about, nor was the intention to enrol a public intent on achieving it, an argument I develop in the following section.

## *6.3 Constituting the LCCC publics as 'carbon-conscious consumer-citizens'*

As detailed in Section 4.2, the LCCC application form provided clear guidance to prospective applicants on the way in which to describe their would-be low carbon community. Of particular relevance to a discussion of the LCCC publics and the way in which they came to be formed was the requirement for applicants to detail how their projects would 'draw on evidence from research and best practice to show how it builds on 'tried and tested' approaches', and secondly 'The applicant has the capacity to quantify the impact of the project on carbon reductions, energy use or other sustainability benefits.' (DECC 2009, p. 8)

Implicit within these guidance notes is a pre-figuring of the problem and its solution based on the work of experts; first in the form of those who have devised 'tried and tested' approaches, and second in requiring that applicants possess the expertise to quantify the impact of such approaches on carbon emission reductions in their projects. It was therefore not surprising that the approaches chosen by applicants focussed on enrolling participants based on variations of individualist approaches centred on a 'save energy, save money' discourse through which participants would become self-governing citizens, adjusting their maladaptive behaviours (*cf.* Maloney and Ward 1973, p. 583) towards quantifiably more sustainable low-carbon lifestyles.

Community practitioners were required to construct the subjectivities of their community members based on the application guidance notes, in response to the categories of public produced by the LCCC organisers within DECC. For example, an additional guidance note required that 'the applicant understands the social and economic potential of integrated approaches, e.g. as a means of tackling fuel poverty' (DECC 2009, p. 9). In this way, a category of citizen with an attendant set of needs was called into being around the identifier fuel poverty, requiring a certain type of practice based on 'tried and tested methods' (DECC 2009, p. 8) that applicants were required to utilise in order to address it.

As noted in Section 4.2, eleven of the twenty-two successful applicants to the LCCC specifically targeted this category of citizen, including the Meadows and Sustainable Blacon projects. The task of the community practitioners therefore became one of governing the alleviation of fuel poverty, requiring that they adopt, or at least perform, a subjectivity reflecting that role. Perhaps the most striking example of the performance of this subjectivity was a community practitioner involved in the Meadows project who chose to describe the area as: 'my low income community' (Meadows-Practitioner).

Interviews with community practitioners in Blacon and the Meadows reinforced the view that the primary motivation individuals living there would have for participating in the respective projects was financial, with a hoped for bonus being a concomitant increase in environmental awareness and behaviour change. Basing their projects around discourses of fuel poverty alleviation served to reinforce the notion that environmental issues were of little concern to participants in those areas; and being in fuel poverty became the only recognised performance of their subjectivity. As a result the save energy, save money discourse dominated within

these projects as it was seen as addressing the explicit social need of alleviating fuel poverty while simultaneously dealing with the implicit environmental agenda of reducing carbon emissions.

Within such a framing, the fuel poor's subjectivity in environmentalism is reduced to that of disinterested outsiders on whom policy interventions designed to better their life based on economic measures of success can be imposed on them (*cf.* Braun 2002; Rutherford 2007). It is a framing in which they are still consumer-citizens, albeit low-income ones for whom the generation of extra disposable income is considered the principal motivation behind their participation. Rather than encouraging low carbon living, the alleviation of fuel poverty is intended to create the conditions by which the 'fuel poor' may more fully engage with the consumer society that their current status is assumed to deny them. The intended outcome of such a project is not to *reduce* consumption, but instead to *increase* it as the fuel poor enjoy the benefits of an increase in disposable income.

The messaging used in Blacon and the Meadows to engage with residents was not unique or confined to those particular projects. For example, the LCCC Interim Report quoted a practitioner from the Transition Together project run in Totnes as follows:

> 'Particularly for the hard-to-reach we have focused entirely on messages like 'Fancy some free electricity?' and 'We can give you money towards a solar-PV system… and if you've less than £250 in your pocket after you've paid your household bills each month you could get it virtually for free'. It's all about the money and we don't get into environmental impacts, $CO_2$ emissions etc. This worked really well.'
>
> (DECC 2011, p. 40)

As I have previously stated (see Section 4.2), it is not my intention to downplay the consequences of living in fuel-poverty, nor question the worthiness of efforts to address it. Instead, what I am endeavouring to highlight is the narrow way in which those constituted as ‘fuel poor’ are represented in projects such as the LCCC. Constituted in this way there is little room for different subjectivities to be accommodated in the LCCC projects that focussed on fuel poverty. However as several interviewees in the Meadows and nearly all of those in Blacon showed, far from being disinterested outsiders they were as articulate about their environmental concerns as other supposedly more ‘pro-environmental’ sectors of society on whom the label ‘fuel poor’ has not been placed.

The Transition Together project was organised and run by Transition Town Totnes, a member of the Transition Network. The Transition Network is a grassroots organisation whose raison d’être is to draw attention to what it describes as the twin threats of peak-oil and climate change (Hopkins 2008). That such an organisation should find itself reproducing discourses based on save energy, save money as its principal means of engagement, and ignoring mention of climate change, the environment and carbon altogether is an indication of how pervasive such an imposed subjectivity has become. It is further evidence of the merging agendas of energy and climate change (*cf.* Lovell *et al.* 2009), and reinforces individualist understandings of social change at the expense of collectively negotiated solutions.

Yet the compatibility of tackling fuel poverty with tackling climate change – in other words combining DECC’s social objectives with its environmental goals – is questionable. Support for this claim comes from the fact that in the Meadows there was little or no focus on ‘small steps’ pro-environmental behaviour change other than encouraging the recipients of the solar PV panels to use electrical appliances

during daylight hours as a means by which to maximise cost savings related to their unchallenged energy consumption. While the Meadows practitioners spoke of their belief that the visibility of the solar PV panels would increase awareness of environmental issues and lead to behaviour change little supporting evidence for this was found during the participant interviews I conducted there (see Chapter 5).

By contrast, the Blacon project did attempt to change participant's behaviour towards more sustainable lifestyles, albeit with limited success. As detailed in Chapter 5, it attempted to change behaviours through the regular Blacon Energy Management Program (BEMP) meetings, along with the provision of information in display houses detailing the carbon and financial savings possible by, for example, topping-up loft insulation to the recommended level. The dual mechanisms of information provision and social support were intended to lead to significant carbon reductions based on an understanding that:

> 'You can save quite a lot of money and a lot of carbon by not doing very much, by not spending very much, therefore, and that's the message that we need to get out and find out how that can be built upon in other parts of the UK.'
>
> (Practitioner-Blacon)

The intention to create a carbon-conscious consumer-citizen is clear, with a range of educational techniques intended to facilitate it. However, as Webb (2012) has suggested, the extent to which such techniques act as a form of discipline on an individual's behaviour is questionable. Support for her assertion was contained in the interviews with Blacon residents in which despite expressing a clear carbon-consciousness little evidence was displayed of an accompanying shift in behaviour,

together with the evaluation of the BEMP that showed a limited overall decrease in energy consumption, with some participants actually increasing their energy usage.

Similar difficulties in encouraging behaviour change were experienced by the practitioners in the Muswell Hill project where, despite describing the area as ‘one of the more affluent areas of the borough’ (Haringey Council 2009) in its application, they also relied on recruiting participants through an imposed subjectivity based on the money-motivated consumer-citizen (see Section 5.3). It would appear therefore that regardless of the socio-economic grouping to which an individual may be categorised as belonging it was an organising principle around which environmental subjectivities were to be constructed within the LCCC, and one that appears to have had limited impact in encouraging individuals to change their behaviour. In keeping with interviewees in the Meadows and Blacon, the Muswell Hill interviewees did not report any significant behavioural change beyond small steps. And, also in keeping with interviewees in the Meadows and Blacon, many reported a range of contradictions and constraints operating at both the individual and household level that served to limit change from occurring.

The principal assumption behind the formation of the carbon-conscious consumer citizen identity is that financial rewards are the principal motivating factor driving their decision making processes. By appealing to the desire to save money an individual’s conduct can be steered towards the more efficient use of energy, and hence reduce their personal carbon emissions. Yet as Dean notes, such an identity should not be confused with a real subject (Dean 2010). Success for programmes of government such as the LCCC is instead measured by the extent to which individuals come to recognise themselves through the imposed subjectivity and alter their behaviour accordingly. The evidence from this research would suggest that on those

terms the LCCC was largely unsuccessful. This is perhaps not surprising; given that research has consistently shown the limits of such individualist approaches to environmental change (see Section 2.1).

As shown in Chapters 4 and 5, many interviewees did not identify with their respective neighbourhoods as low carbon communities, nor did Blacon or Meadows interviewees identify themselves as belonging to a low income community. The challenge for the LCCC projects became one of how to 'find means by which individuals may be made responsible through their individual choices for themselves and those to whom they owe allegiance' (Miller and Rose 2008, p. 214), whereby that allegiance is to other low carbon community members (*cf.* Rose 1996). An example of this was the Muswell Hill LCZ, where awareness of the existence of the zone was low among participants in the Green Homes Makeover (GHM) (see Section 5.3) prior to receiving the initial visit from a project volunteer. Volunteers were encouraged to make a virtue of the low carbon zone, and highlight the exclusive nature of the project as one of only a small handful of such projects running in London. In this way, the message the volunteers were endeavouring to convey to residents was that they were special and should consider themselves privileged to have the opportunity to participate in such a project as others in the area had done. Interviews with residents showed that it was a successful approach, as nearly all of them spoke of the project in similar terms.

There is, however, a contradiction in respect of the problem framing of the LCCC in that constituted as a consumer-citizen, the individual's allegiance is only to his- or herself, and any involvement in a community-based project ends once they have 'done their bit'. Having briefly tapped into the sense of community that many interviewees described experiencing, and used that as the wedge through which to

deliver information and/or energy efficiency measures, the low carbon zone as a construction of community simply melted away (*cf.* Bauman 2000).

A more fundamental problem with the subjectivity of the carbon-conscious consumer citizen is its awareness of the contradictions and limitations of its own position. A number of interviewees across each area studied spoke of what they perceived as the limits of personal change in addressing climate change. Typified by the 'small steps' argument – I can do my little bit, but it really is only a tiny drop in the ocean – many of them spoke of feeling a sense of powerlessness to do any different, yet were still keen to 'do their bit'. Furthermore, by encouraging participants to focus on isolated acts of pro-environmental behaviour separated from the context in which they occur, many interviewees were able to rationalise the apparent inconsistencies and contradictions within their approach to living low(er) carbon lifestyles (*cf.* Hobson 2002; Webb 2012). For example the Blacon resident who spoke of his behaviour in terms of a balance sheet, justifying his stockpiling of tungsten bulbs as a negative against the positive of his not over-filling his kettle, or the Muswell Hill resident who spoke of avoiding flying wherever possible yet went on to provide a lengthy series of behavioural rationalisations ranging from acquiring second-hand cats to her reasons for flying for work:

> 'Now cats, animals have a carbon footprint and specifically we, we actually got some where friends were leaving the country and we looked after existing cats, we didn't get new cats. And we're vegetarian at home, which you know has some impact. So I'm aware of flying but equally I think that, my personal view is that sometimes if you try and do, if you try and do what you can, that you try and do some things it's almost like you're expected to do absolutely everything and you, you know, it's almost…and in terms of work, if I have a job where on occasion I have to fly, because I'm going to Ireland or something like that and there's no other way of doing it I just think well, you know, I try not to do it so often but I'm not going to lose my job on this instance.'
>
> (Participant-Muswell Hill)

Her reflexiveness in relation to the impacts of her behaviour on her carbon footprint is clear, as are the limits of what behaviours she is willing to moderate. Other interviewees made similar observations, leading a number of them to conclude that the types of small-scale interventions the LCCC projects were making are capable of generating incremental reductions in carbon emissions at best, and are subject to reversals depending on events. The principal example of this was the winter of 2010-11 that many interviewees spoke of in justification and explanation of the difficulties they faced in reducing their carbon emissions. Personal comfort in the form of a warm house, with the heating on for longer durations than many of them considered normal, was described as forming a barrier to the adoption of a low carbon lifestyle in spite of their carbon-consciousness.

In summary, rather than critiquing the project organisers for their narrow view of what may have motivated individual's to participate in their projects, it would instead be more accurate to reflect that it is another instance of the problematisation of carbon management held by DECC being successfully translated into the LCCC (*cf.* Rose and Miller 2008). Conceptualised as consumer-citizens, money becomes the key motivator around which to encourage change and community as a form of social organisation becomes irrelevant. Instead, the rhetoric of community-scale delivery becomes dominant, where community-scale is a geographical area in which an aggregate of individuals exists. Tried and tested methods of the type LCCC practitioners were required to deliver become variations on information campaigns based on saving consumers money, and evaluation continues to centre on quantifying success through aggregating carbon savings. However the discourse of save energy, save money does not work as most energy consumption is inconspicuous (Burgess *et al.* 2003) and embodied within our

everyday routines and practices (e.g. Shove 2003, 2007; Hargreaves 2011). Individuals are therefore quite capable of rationalising apparent inconsistencies in their carbon-consciousness and would appear not open to such direct interventions as the prevailing discourse suggests. This leads to the observation that the carbon-conscious consumer-citizen (*cf.* Slocum 2004; Paterson and Stripple 2012) may well prove to be the wrong subjectivity through which to encourage positive environmental change, whether targeted through community projects or not. However despite these apparent limitations, the focus drew ever closer on the carbon-conscious consumer citizen during the course of the two years of the LCCC, as the following section will show.

### *6.4 From 'test-bed' to 'of some interest': the evolving purpose of the LCCC*

The stated aim of the LCCC as a 'test-bed' for assessing the role of community in shaping the transition to 'greener, low-carbon living' (DECC 2009, p. 1) was based on granting strictly controlled access to the experiment, and access that conformed to DECC's pre-existing understandings of both what the problem was and how to solve it. As this chapter has highlighted, the idea of engaging with communities as potential sites of institutional learning ran counter to the problem framing held by DECC.

Resistance to the LCCC existed from the projects inception as it struggled to make itself relevant to DECC on DECC's terms. What became particularly interesting to explore was how that resistance changed as a result of the general election held in the UK in May 2010. The election resulted in Labour being voted out of office after fourteen years in power, and the formation of a coalition government with the centre-right Conservative Party as the primary partner. Within DECC, the change in Government left the LCCC with an uncertain role:

> ‘What we were testing out with the Low Carbon Community Challenge was a package that included not only what would happen within the community but this big message from government about the need for collective action. It’s all got skewed because, you know, for a long time we don’t know who the government was and then they got a different message which no longer includes particularly that much interest in the Low Carbon Community Challenge.’
>
> (DECC Official)

Labour, with its championing of the Third Way and communitarian politics, was replaced with a conservative led government operating with an agenda based on the nebulous concept of the ‘Big Society’ and a concomitant shift in the rationality of government from grant-based financing of projects such as the LCCC to a reliance on private finance initiatives such as the Green Deal. The LCCC projects, having been tasked with making themselves relevant to DECC’s policy goals, found themselves in a position where those goals changed mid-way through the project. Similarly, officials responsible for the LCCC within DECC found themselves having to reshape its purpose to fit the new policy agenda. In addition, in response to the outcomes of the public spending review undertaken by the coalition government it was announced that the SDC would close at the end of March 2011. As a result, the policy official widely considered responsible for the LCCC, who was on secondment from the SDC, was removed from her post. Her role as deputy-head of community-led policy making was removed from DECC’s organisational structure, and the administration and reporting of the LCCC consolidated under the Customer Insight and Engagement team.

While a departmental re-organisation and shift in reporting responsibilities are not in and of themselves enough to suggest a shift in the purpose of the LCCC, there is a clear indication of a change in the rationality of government. In that

change, publics are no longer understood as members of a community, but instead become customers, with a resulting shift in how their behaviour is understood that more accurately reflected how individuals were understood within DECC. As Taylor (2011, p. 274) has noted, ‘It is no good if champions of change are lone rangers within their organisations and the sheriff and troops are going on ‘as before’. And champions eventually move on’ – or are moved on as a result of the closure of the SDC. This allowed the techno-centric, managerialist, problematising of carbon management held by DECC to reassert its dominance over the LCCC, with a shift in political rationality guiding its implementation. In addition, the influence of the expert network was reduced greatly as their voice within DECC had been removed. Restating the purpose of the LCCC to reflect the new rationality of government post-election, and written at the mid-point of the programme, the Interim Report stated:

> ‘The aim of the LCCC is to test community-scale delivery of low carbon technologies, measures and approaches that will help inform DECC’s key policies and programmes – such as Green Deal and the Smart Meter roll out – as well as contribute to the Department’s wider work around the ‘Big Society’.’
>
> (DECC 2011, p. 3)

The new aim of the LCCC stood in marked contrast to that of its original stated goal to ‘help government, local communities and a range of parties involved in the UK transition to greener, low carbon living understand how best to deliver this transition at community level’ (DECC 2009, p. 1). With that change in aim a new series of knowledge claims regarding the purpose of the LCCC were made regarding the ability of community to deliver on a mix of government programs aimed at regulating people, the environment, and markets. Further, it implicitly stressed the need for community to prove themselves against a new set of DECC priorities. As

one DECC official described it to me: ‘that's the nature of voting one government in and one government out’ (DECC Official). Continuing on that theme, and expressing a viewpoint mirrored by several other DECC and expert network interviewees, he went on to stress that adapting the LCCC to its new circumstances was difficult due to procedural constraints within both the department and the civil service more broadly. In addition, learnings from the LCCC based on an evaluation designed under a grant funded scheme had to be adapted to meet the new policy landscape offered by the Green Deal and Big Society in which market based mechanisms were intended to play a greater role.

Anticipating the post-election change in focus of the LCCC, the SDC staff member on secondment to DECC, in collaboration with colleagues from the community sector, attempted to unite several organisations working on climate change and sustainability issues into a single advocacy network. Explaining her reasoning for this approach, she commented:

> *Respondent*: So what’s most likely to happen is that the learning from LCCC will go out to the communities, the communities will become better at lobbying government and then it will go up to ministers and then down to policy officials, rather than going straight up.
>
> *Interviewer*: Right, so almost using the community actors to influence the policymakers…
>
> *Respondent*: To influence ministers…
>
> *Interviewer*: To influence ministers to then come down.
>
> *Respondent*: Yes.
>
> *Interviewer*: Right, so rather than going up you’re going out?
>
> *Respondent*: [LAUGHS] It’s the only way I can do it.

The intended vehicle for lobbying Government was the Communities and Climate Action Alliance (CCAA). Formed in 2010, the CCAA was an 'informal grouping of representatives from networks that support grass roots action' (CCAA n.d) that brought together members of a number of community-based organisations taking action on climate change and sustainability issues such as the Transition Towns movement, the Low Carbon Communities Network, the Community Energy Practitioners Forum and the Green Communities Network. As part of its mission statement it declared:

> 'All the networks had been having talks with government departments in Westminster including DECC, DEFRA & CLG. It became clear that both talk and action could be better supported if networks worked together on shared agendas in order to help government and other stakeholders respond more quickly and at appropriate scale.'
>
> (CCAA n.d.)

To strengthen its advocacy work it held a two day conference in London in January 2011 titled 'Communities and Climate Action', which I attended on both days. Over two-hundred delegates attended, including representatives from a number of LCCC projects for whom a separate networking session was organised. Part-funded by DECC, the conference focussed on four themes: housing and home energy services, community renewables, building engagement and behaviour change, and transport.

Prior to the conference, a paper under the joint authorship of the CCAA was circulated to delegates. The opening paragraph stated:

> 'It is clear that the speed and scale of society's response to climate change does not yet match the urgency of the threat we face. Many believe, supported by behavioural change theory and practice, that communities can act as powerful agents of change. However to have any significant impact, community action will need to move from the margins to the mainstream.

> The range of barriers currently facing community action will need to be addressed, in part through more productive partnerships between communities and other key stakeholders like local authorities, the private sector, policy makers, NGOs etc.'
>
> (CCAA 2011, p. 15)

The paper went on to detail the three principal roles that the CCAA members believe it could play as an advocacy network:

1. To demonstrate to government and other partners communities' unique and critical role in helping deliver climate change targets
2. To help build a sense of shared purpose and collective action amongst our members and across a range of key private and public sector partners aimed at lowering the barriers to community action on climate change
3. To develop, in collaboration with key partners, a UK wide development plan which plays to partner strengths and which actively enables the potential for community action on climate change.

(CCAA 2011, p. 15-16)

What is of note from the details provided about the CCAA is the extent to which an organisation claiming to represent the grassroots presents an agenda closely matching that of top-down Government organisations like DECC that it purports to challenge. From its powerful opening statement outlining the urgency of the threat society faces as a result of collective inaction on climate change it falls swiftly into a problem framing based on changing individuals' behaviours as a way of meeting carbon reduction targets.

The relevance of presenting the CCAA report in this context is that it is an umbrella organisation – a self-styled 'network of networks' – and therefore from the way it describes the problem it can be inferred that the leaders of its member organisations share similar problem framings. It is another example of the successful *translation* (Rose and Miller 2008) of the problem of carbon management held by the UK government, and neo-liberal society in general, to the community sector. DECC's interest in maintaining links with CCAA and its partner members can be understood as a means of monitoring and controlling the governance of environmental change at the community-scale. Far from challenging DECC's understanding of the problem, the CCAA is in fact offering itself as a conduit for the delivery of the Government's programme of carbon management. Rather than being a source of political mobilisation against the status quo or site of grassroots innovation (*cf.* Seyfang and Smith 2007; Seyfang and Haxeltine 2012), the CCAA has been co-opted into a regime of carbon management practices that does little to address the problem they purportedly have set out to solve.

The key point is that rather than view the CCAA and its members as passive dupes in a game in which they have no control, and reflecting my own experience of meeting a number of them at various DECC sponsored events both formally and informally during the course of this research, it is more accurate to observe that many of them believe strongly that we are indeed in the midst of an unfolding environmental crisis and are doing what they believe they can to mitigate it. That the LCCC community practitioners and CCAA members were doing so in such a tightly controlled space indicates how successfully the field of possible action available to them was structured to limit the ability for radical social change towards more sustainable options to occur. In addition, the idea that learning from the LCCC would

‘go out then up’ to influence policy proved not to be the case, as the formal evaluation was now to be written for an internal audience within DECC rather than the communities themselves. The experts responsible for writing the evaluation report were:

> ‘…now part of the Green Deal consumer insight team and they have refocused their energies to get as much out of that, because that's a flagship government project that's going to be worth in terms of commercial sector, potentially hundreds of millions of pounds, you know, and getting that right is key.’
>
> (DECC Official)

The evaluation of the LCCC had become a rationalisation of the merits of community as a delivery mechanism for the Green Deal. Its purpose was to rationalise a political decision made by the new government who had inherited the LCCC mid-way through its two-year duration. Having chosen to continue with the LCCC, the evaluation could, in effect, have done little else than reflect the new policy landscape provided by the Green Deal. It is evidence of what Flyvbjerg has described as the ‘more ritual than real’ (Flyvbjerg 1998, p. 15) nature of evaluations in which the results are a foregone conclusion written to rationalise a prior political decision. Examples of this were evident throughout the Interim Report. For example, under the heading ‘Emerging narratives of engagement – Big Society and creating shared value’, and commenting on ‘the role the LCCC is playing in the development and delivery of policy’ (DECC 2011, p3), the Interim Report stated:

> ‘The LCCC communities provide a powerful example of how to build community in pursuit of collective action for mutual benefits. They have the potential to develop as a powerful social movement at the vanguard of change in the complex area of climate change and energy efficiency, uniting local, government and private sector partners. They provide an interesting example

> of a new location and architecture for redefining the area where government stops and civil society reclaims space. The search for sustainability provides the glue that brings the communities together, locally and potentially nationally.'
>
> (DECC 2011, p. 6)

Having redefined the purpose of the LCCC as an aid to policy development around the Green Deal and the Big Society, the climate change and energy efficiency agendas merge (*cf.* Lovell *et al.* 2009). Community is conflated with civil society as part of a new social architecture through which the 'search for sustainability' may be governed, and new social movements form around 'the complex area of climate change and energy efficiency'.

The defining features of what constitutes a social movement have been the subject of some debate within the literature, with numerous authors presenting a slightly different conceptualisation. For example Blumer's definition of social movements as 'collective enterprises seeking to establish a new order of life' (Blumer 1969, p. 99) relies on the idea of unrest as the mobiliser for movement formation. It has been described as being a product of the era in which it was written and the social movements it was attempting to define such as the civil rights movement of the 1960s (Crossley 2002). Meanwhile Tarrow's claim that social movements are engaged in 'confrontation with elites authorities and opponents' (Tarrow 1998, p. 2), suggesting that there is an easily identifiable institution for the social movement to target, has also been called into question as some movements such as gay and lesbian rights groups mobilise around more abstract targets such as institutionalised homophobia. Furthermore while each definition suggests that social movements are engaged in some form of challenge to 'authority' it can be seen that

the form that challenge takes may be either direct or indirect, and against either an institutional or abstract target. However a shared element of each definition is its emphasis on the idea of collective action as a means of encouraging social change. Yet even these broad definitions are called into question and critiqued for being too narrow. In order to overcome this perceived definitional deficiency, Snow *et al.* offer their own version. Social movements are:

> 'collectivities acting with some degree of organisation and continuity outside of institutional or organisational channels for the purpose of challenging or defending extant authority, whether it is institutionally or culturally based, in the group, organisation, society, culture or world order of which they are a part.'
>
> (Snow *et al.* 2004, p. 11)

In summary, social movements can create space for the formation of new identities, explore new ideas and ways of living and devise new solutions to old problems in order to challenge the existing political and social order (Crossley 2002). From these definitions it is immediately clear that social movements are not formed within the invited spaces created by government programs such as the LCCC. The idea of a state-mediated social movement seems at best contradictory, in particular when what the LCCC was offering provided so little in the way of a challenge to the existing framing of the problem of climate change or of the solutions proposed to address it. The Interim Report continues:

> 'The LCCC is clearly contributing shared value, engaging, for example, energy companies in tailoring their services to communities in ways that enhance company competitiveness while simultaneously improving both economic and social outcomes. Thus, social and economic progress can be seen to potentially support each other, with government's role being to ensure the right kind of regulation to encourage companies to invest in long-term value rather than short-term profit. The Big Society project and the search for

> shared value depend upon the heightened involvement of local communities in designing, developing and managing local services and LCCC provides significant evidence of this.'
>
> (DECC 2011, p. 7)

Forming part of the official discourse of the LCCC the Interim Report is placing communities firmly within a regulatory regime through which market mechanisms are seen as agents for positive long-term social and economic change. It presents the shift from a central government grant-funded system, such as the LCCC in its original form, to a market-based system as the appropriate response to the 'search for sustainability' at the community level.

At the half-way point of the LCCC the role of community in delivering social benefits is still evident in both the rhetoric of the quote above and in the reporting of outcomes from a number of LCCC projects. For example:

> 'The biggest revelation has been in the feedback from the groups themselves, who more than anything, value the **new social connections** they are making and which appear to last well beyond the 'official' group meetings, with most groups continuing to meet in some form or other. The household and carbon savings, which acted as a hook initially (external motivation) are secondary to what keeps people engaged (intrinsic motivation). **We underestimated the desire for human connection!'**
>
> (DECC 2011, p. 42 emphasis in original)

The quote formed part of a case study presented in the Interim Report written by a community practitioner from the Transition Totnes project. It is in many ways quite a depressing realisation that a community project should have underestimated the value of social relations, relegating their motivational power to somewhere behind the all-pervasive, if increasingly questionable, draw of saving money.

However the fact that it was included in the Interim Report, along with other examples that highlighted the social benefits of the projects, can be seen as a positive outcome of the LCCC in that it provides evidence of community meaning something more to its members than simply as a way of finding out how to save money on their electricity bill. Yet by the time the final evaluation report for the LCCC was published in July 2012 its purpose had once again been rewritten. No longer was the LCCC about informing 'key policies and programmes' such as the Big Society, Green Deal and Smart Meter rollout as in the literature produced around the Interim Report. Instead, the *Low Carbon Communities Challenge Evaluation Report* states that:

> 'interest in learning from LCCC projects has already been expressed by DECC's Smart Metering team, the Office for Renewable Energy Deployment (ORED) and the Green Deal.'
>
> (DECC 2012, p. 24)

While in answer to one of the eight key questions the LCCC had sought to answer, 'Do community solutions enable joined up and integrated deployment of government's policies and programmes?' (DECC 2012, p. 42), the report stated:

> 'There is a lack of evidence to fully address this question. However, the experience of the LCCC suggests that projects were attuned to the national policy frameworks and were keen to translate these locally in terms of delivery on the ground. Several projects, for example, provide useful test cases for current DECC policy initiatives including smart meters, Green Deal and the Office for Renewable Energy Delivery.'
>
> (DECC 2012, p. 42)

Where the interim report presented lengthy case-studies written by community practitioners that highlighted the unexpected positive social outcomes of

their projects, the final evaluation report downplayed this aspect. In answering another of the key questions the LCCC sought answers for, namely ‘What are the wider environmental, social and economic impacts of community delivery?’ (DECC 2012, p. 42) the final evaluation report stated:

> ‘There is insufficient evidence to determine the wider environmental and economic impacts of community delivery. However, some projects contend that their most positive outcomes have been social.’
>
> (DECC 2012, p. 42)

As discussed in Chapter 4, evidence for officials within DECC was primarily recognised as being quantitative in nature: numbers count. Therefore taken in conjunction with the warning provided at the beginning of the report that ‘the reader is reminded that outcomes were largely self-reported by the projects themselves’ (DECC 2012, p. 5) the use of the word ‘contend’ serves to throw doubt on the reality, or relevance of the statement that the most positive outcomes of the projects may have been social. It is presented as a spurious, unsupported claim made by non-experts and is therefore open to doubt. Whether it is true or not is beside the point, and its inclusion serves to reduce the relevance of other sections of the report focussing on social aspects such as the resistance several projects experienced in their communities, and the range of motivations stated for participation such as feeling a sense of belonging to the local area.

The sense of belonging to the local area, described in the final evaluation report as a ‘powerful predictor of engagement’ (DECC 2012, p. 39), was one of the key themes to emerge from the participant interviews conducted for this research (discussed in Section 4.5). It is a statement that seems to run counter to an earlier statement in the report stressing the importance of financial savings as a source of

motivation for engaging with the projects. However presented in such a way, with the financial motivation presented as the initial hook, with a sense of belonging to the local area as an additional means of encouraging engagement, it is a relatively straightforward leap to read it as a justification for the area-based delivery of energy efficiency measures designed to save carbon-conscious consumer-citizens money.

Of significance to the behaviour change aspects of the LCCC, and echoing the experience of many of the participants interviewed for this research (see Section 5.5), the potential impacts of family dynamics on behaviour within the household were highlighted, along with evidence of continued 'maladaptive behaviour' (Maloney and Ward 1973, p. 583):

> 'There is some tentative evidence…that some of the installed low carbon measures did not necessarily result in lower consumption and/or financial savings…there were some issues - regarding the control panel and general level of instructions - that meant that some of the recipients of air source heat pumps in Chale Green did not 'get the best' from the technology (at least not initially). Furthermore, one of the case studies also simply chose to heat the home for longer / to a higher temperature to enjoy the thermal comfort of the new measures, as opposed to the carbon and cost savings.'
>
> (DECC 2012, p. 40)

The quote suggests that the householders concerned were behaving in an inappropriate manner rather than questioning why they were doing so. Information and financial and carbon savings appear to have been unsuccessful in encouraging behaviour change despite the assumption within most LCCC projects that they should be. Not being able to 'get the best' from technology and choosing to enjoy an increase in 'thermal comfort' would suggest that an approach that goes beyond information provision alone is required to understand what is going on within the households studied. Practice theory offers an analytical lens through which to do so by asking 'why do people do what they do?' and 'how do they do those things in the

way that they do?' Warde (2005, p. 140). Practice theory implicitly acknowledges the social construction of practices, the role of collective learning, and the importance of the exercise of power in shaping and defining justifiable conduct. It therefore offers a more comprehensive analytical lens through which to examine *why* the apparent anomaly of people not responding 'correctly' to the information provided or technology installed occurred.

The final evaluation report included insights indicating both the potential of community as a means of mobilising individuals to engage in sustainability issues, and the problems at an individual or household level of changing domestic practices. Yet as they were self-reported and hence open to doubt, the extent to which they are able to challenge the dominance of individualising discourses based on save energy, save money is doubtful, particularly given the lack of support within DECC for the LCCC. However hints at the continued relevance to DECC of community as a form of governing at a distance were contained in the statement that several projects were 'attuned' to the current policy framework and were 'keen' to translate these locally in terms of delivery on the ground. Or, expressed in another way, DECC still sees community as having a potential role in delivering the Green Deal.

As Taylor observes, public servants are good at doing what they've always done (Taylor 2000). As the LCCC was the brainchild of non-permanent staff on secondment from the SDC, an organisation who while sharing an instrumental understanding of community with DECC also recognised the importance of its social aspects, it is not surprising that the majority of expert network interviewees described it as being a very unusual policy-experiment to have occurred at all. In other words, officials responsible for implementing DECC's pre-existing understanding of how to address its self-styled mission to power the country and protect the planet were

unlikely to be challenged seriously by approaches introducing community based on social relations into the mix of options available to them. The LCCC presented a particular response to the problem framing of climate change that reflected the rationality of its originators. What became clear from interviews with other members of the expert network and community practitioners was that under a new government with a different governmental rationality the problem had not changed, but its problematisation had. In this way the practices of carbon management were altered, with resulting impacts on the LCCC. Or perhaps more accurately, the resistance the LCCC posed to the existing practices of carbon management within DECC was countered by a reconfiguring of its role, with a return to technology as the principal tool of tackling climate change, and the market taking a greater role in its delivery.

### *6.5 Discussion and Summary*

What is clear is that far from being an innocent endeavour, the LCCC was shot through with power-infused relations that sought to shape how knowledge about it was created and understood (*cf.* Rutherford 2007). At its inception, the stated purpose of the LCCC was to 'help government, local communities and a range of parties involved in the UK transition to greener, low carbon living understand how best to deliver this transition at community level' (DECC 2009, p. 1), yet by its conclusion two years later it had been reduced to being of 'interest' to certain departments within DECC who could 'learn from community-scale approaches to the delivery of low carbon technologies and engagement activities' (DECC 2012, p. 2). The goal of the first – to gain an understanding of how to transition to low carbon living – is a long way from the goal of the second – delivering low carbon technologies. While still taking an instrumental understanding of community as a means by which to *deliver* the transition to low-carbon living there is an implicit

acknowledgement within the original goals of the LCCC that what is involved is a *social* process. This view of community was constantly repeated in interviews with members of the expert network. Yet by the time the final evaluation report was written the role of the social had been largely removed, replaced by an even more instrumental understanding of community as a scale through which to deliver low-carbon technology. Economic incentives of saving money and appealing to investors and technological solutions based on improving carbon-efficiency are central components of this approach to governing environmental change. It is the carbon-conscious consumer-citizen who must change, not the centralised, fossil-fuel based energy system that DECC is also charged with governing.

This framing was evident in each of the three areas studied, with the save energy save money discourse and technological solutions designed to work within existing systems of provision to provide energy efficiency improvements dominating (detailed in Chapter 5). However a number of issues remain with this problem framing. Firstly, framing the problem as one for individuals to solve does little or nothing to challenge the much broader issue of the neoliberal ordering of society in which governments and corporations interact in such a way that the imperative of continued economic growth continues to usurp that of protecting the environment. Secondly, doubts need to be raised over the ability of community to act as a vehicle for the delivery of positive environmental change at the individual level. While community may be able to deliver energy efficiency measures of varying sizes and scales, ranging from water-flow restrictors as in Muswell Hill through to solar PV arrays as in the Meadows, there is little to indicate that change towards low(er) carbon living necessarily followed or will follow as a result of similar efforts in the future. Delivering low carbon technologies does not automatically equate to

delivering low carbon living, whatever the delivery mechanism. And finally, drawing aspects of the previous two points together, questions need to be asked regarding what exactly community groups were being asked to make themselves relevant to with regards to DECC's priorities. Is it the business sector? Several DECC officials stressed the importance of learnings from the LCCC contributing to the Green Deal, the 'flagship government project' (DECC Official) with a claimed potential to generate hundreds of millions of pounds in revenues for the commercial sector. Is it carbon reduction? As noted in the final evaluation report, some LCCC projects chose technology such as solar PV that provided them with an income through the feed-in-tariff but which was not necessarily the most effective technology for carbon reduction.

Similar questions could be asked in relation to other DECC priorities such as addressing fuel poverty, and of course tackling climate change. But where does this leave community? I would argue it leaves it with a limited role. As a delivery mechanism it can have some effect – as evidenced in the Meadows and Muswell Hill LCZ projects. Whether it is effective at a scale that will maintain DECC's interest is a question worthy of additional research; however what is not in doubt is that based on a geographical interpretation of community it can play a role in getting energy efficiency technologies on or into people's homes.

Where community is likely to fail is in facilitating change within the home. Governing through community to meet the government's goals in this context fails because it is much more difficult to draw into existence a 'low carbon community' in the same way you can with, for example, 'the gay community' (*cf.* Rose 1999). Based on the problem framing held by DECC any attempt to do so relies on citizens identifying themselves through the imposed subjectivity of the carbon-conscious

consumer citizen and modifying their behaviour accordingly. Yet as has been shown in this thesis the carbon-conscious consumer-citizen is quite capable of rationalising their ‘maladaptive behaviour’ (Maloney and Ward 1973, p. 583) in ways that suggest the individual is the wrong focus of such programmes to begin with. The ‘messy actualities of social relations’ (O’Malley *et al.* 1997, p. 509) indicate how such behaviour change strategies can unfold in unanticipated ways once they encounter their target audience. This suggests that an approach that draws on a wider analytical lens than that offered by rationalist and social-psychological approaches may be fruitful, with that offered by social practice theory providing a potentially useful way through which to view such programmes. However the governmentality lens through which this chapter has analysed the LCCC would suggest that such a change in approach is unlikely as it would draw attention to a number of ‘‘inconvenient facts’ about how such programs present themselves and their objectives and strategic effects’ (Dean 2010, p. 87).

Rather than helping ‘a range of parties involved in the UK transition to greener, low carbon living understand how best to deliver this transition at community level’ (DECC 2009, p. 1) this chapter has shown that the role of community in the LCCC was as a mechanism through which to deliver DECC’s instrumental understanding of what it is and what it can do in relation to tackling climate change, and enrolling others into that worldview. The LCCC incorporated the dominant policy approach to governing environmental change that focuses on small scale behaviour change and the delivery of technological fixes aimed at improving carbon efficiency to passive consumer-citizens, and as such did little to challenge existing social practices or patterns of normal behaviour. As Chapter 5 highlighted, this approach ignored the normative understanding of community from

consideration as a mechanism of change, and offered community members a limited and largely ineffective means by which to encourage positive environmental change. Within the framing of the LCCC, community offered little different to that which has gone before in encouraging, or governing, low(er) carbon lifestyles. Further to that, other worldviews that may offer an alternative means by which to understand what it means to 'tackle climate change' have been excluded from the knowledge produced as part of the construction of its reality. As such, the LCCC offers little evidence – for or against – of the ability of community to tackle climate change.

It is at this point worth returning to reflect on the four value-rational questions guiding the *phronetic* approach to social science (Flyvbjerg 2001, p. 60) that acted as additional guides during my research (see Section 3.1), and what answers the analysis of the LCCC presented in this chapter might present to them:

1. **Where are we going?**

Nowhere, or at best around in circles. Two key points can be made in summary to this question based on the detail presented in this chapter. First, a narrow understanding of community as a delivery mechanism for government policy and means by which to govern the population at a distance persists within DECC. Second, approaches to governing environmental change through community continue to rely on an individualist problem framing in which the goal of changing the behaviour of carbon-conscious consumer-citizens and delivering small-scale technological fixes aimed at improving energy efficiency remains.

Based on an individualist problem framing the LCCC offered little different to that which has gone before in encouraging positive environmental change, and within the LCCC other worldviews that may have offered an alternative problem

framing were largely excluded from the resultant knowledge produced. Questions need to be asked as to why such a problem framing based on individualist approaches to change persists when evidence mounts of its ineffectiveness across a range of scales and locations.

The idea that the carbon-conscious consumer citizen is responsible for tackling climate change through small-scale behavioural modifications when the neo-liberal economic paradigm driving carbon emissions remains in place is doomed to fail. Viewed as an aggregate of consumers, community will never be able to tackle climate change as the predominant mode of understanding behaviour is one in which consumption is to be encouraged, not discouraged. As a result, programmes of government like the LCCC will never encourage the type of alternative, truly low carbon lifestyle offered by places such as Lammas. This is because the prevailing understanding of the problem, namely how to alter consumer behaviour, does not involve challenging existing modes of consumption. Yet it is a problem framing that persists within the UK in the rhetoric of the Green Deal policy agenda.

While delivering energy efficiency measures on a national scale is the principal goal of the Green Deal, DECC have maintained an interest in the role community may play at the local level. DECC provided an additional £10m funding to The Local Energy Assessment Fund (LEAF)[22]. Launched in December 2012 with the tagline 'seeding community energy action', funding averaging £50,000 was awarded to eighty-two community projects across England and Wales. The fund aimed to:

> '…support communities across England and Wales to play an active role in the development of a low carbon society where energy supply is both secure and affordable. The fund will resource work by community groups to understand their potential for improvements in energy efficiency and local

[22] Details available at http://www.greencommunitiescc.org.uk/.

> deployment of renewable energy, alongside demonstrations of solid wall insulation. The grant fund provided by the programme is intended to help communities to prepare for new opportunities in sustainable energy and climate change arising from the Green Deal, Renewable Heat Incentive and Feed in Tariffs.'
>
> (LEAF n.d.)

LEAF was placing the context in which community groups may come to 'understand their potential' within yet another tightly controlled space, that of the 'new opportunities' provided by regulatory measures designed to address DECC's goals of powering the country and protecting the planet. However where LEAF differed from the LCCC is that it was to be managed by a number of partner organisations drawn from the community sector including the Low Carbon Communities Network, the Transition Network and the Community Energy Practitioners Forum – all members of the CCAA. This could be seen as evidence of the influence of the CCAA in shaping the policy agenda, or alternatively, as argued in Section 6.4, a sign of the successful translation of the problematisation of carbon management held by government to the community sector and the co-opting of the CCAA to deliver it.

**2. Is this desirable?**

No. Additional questions need to be asked as to what this chapter tells us about DECC's stated mission to 'power the country and protect the planet' in order to tackle climate change. The key argument put forward by Chapter 5 and built on in this chapter is that no matter what the delivery mechanism for positive environmental change the same limited outcomes will occur if the problem framing does not change. At no point has the individualist problem framing been challenged by the

insertion of community into the range of options available to governmental programmes of environmental change such as the LCCC.

The idea that community as a form of social organisation was capable of tackling climate change was introduced into DECC through the work of non-permanent staff on secondment from the SDC. Yet over the course of the LCCC the social role of community was first downplayed and then largely removed from official reports. Social processes at work within the LCCC were irrelevant to DECC because of the way the role of community is understood as a delivery mechanism for small-scale technological fixes aimed at improving energy efficiency within carbon-conscious consumer-citizens households. Yet as highlighted in Chapter 2 and again in Sections 4.5 and 6.1 respectively, the role of community can be much more than simply a blunt instrument through which to deliver DECC's policy goals.

### 3. What should be done?

Other problem framings and ways of understanding the world – both in terms of community and governing environmental change need to be incorporated into climate change policy.

Community was performed by participants in the LCCC in ways that did not conform to the expectations of its originators. Little change occurred as a result of the fictive space of a low carbon community lacking the resonance to adjust the way in which participants viewed the frame in which they were appearing. This was most noticeably the case in Blacon, where the BEMP meetings regularly drew nearly one-hundred attendees performing a publically visible display of active citizenship, yet they resisted attempts to cast them as passive energy consumers. When interviewed many of them revealed the importance of feeling a sense of community in Blacon,

and how this had played a significant part in their participation in the BEMP. Excluding these aspects from the knowledge produced as part of the LCCC, together with marginalising groups such as Lammas, serves to remove alternate ways of understanding the world from consideration as a means by which to tackle climate change.

In addition, the continued focus on individualist approaches to governing environmental change offer limited scope for addressing the problem they are notionally setting out to solve. The multiple-model approach adopted for this thesis that incorporated perspectives from social psychology and sociology (discussed in Section 2.1.3), together with a focus on the role of social interaction in encouraging change (discussed in Section 2.4), suggests a way to challenge that approach.

**4. Who gains and who loses, and by which mechanisms of power?**

It is difficult to say if anyone gains or loses in this context. On one level, we all lose if the more extreme predictions of climate change come true while we continue to add extra loft insulation and turn the thermostat down a degree or two in the expectation that will make any difference. It is also worth noting that within the wider global context, the neo-liberal paradigm, of which DECC and the UK Government are a part, gained, as it remained unchallenged by the LCCC.

Within the context of the LCCC, the greatest gain was had by DECC in that their problem framing of how to tackle climate change also remained unchallenged. Through their ability to structure the field of action available to applicants to the LCCC they were able to control both what a low carbon community is and what it can do, and hence the role it could play in tackling climate change. However DECC's gains seem broader than that when considered in light of the fact that

grassroots organisations and networks such as the CCAA have come to see the problem of climate change in the same way. The rhetoric of the CCAA (see Section 6.4) indicates how successfully the problem of community action on climate change has been translated into what was intended to be a grassroots movement for social change. To quote Rose and Miller once again, DECC are:

> 'able to require or count upon a particular way of thinking and acting from another [the CCAA], hence assembling them together into a network not because of legal or institutional ties or dependencies, but because they have come to construe their problems in allied ways and their fate as in some way bound up with one another.'
>
> (Rose and Miller 2008, p. 34)

It is in this way that groups like the CCAA continue with attempts to make themselves relevant to DECC on DECC's terms, a task in which they will continue to struggle. Yet as long as they are involved in such activities and continue to share a similar understanding of the problem of climate change they will present limited resistance to DECC's ways of operating, and as such, the role of community in tackling climate will remain largely instrumental.

There was, and remains, a conflict between DECC's instrumental understanding of community as a delivery mechanism for low carbon technology and small scale behaviour change, with that of the community members and their normative understanding of community in relation to their local neighbourhood. To continue with a problem framing that sees individuals as little more than self-interested, money-motivated consumer-citizens on whom policy interventions may be imposed is at best counter-productive, at worst doomed to fail. I am in no way suggesting that community is an environmental or social panacea capable of

'solving' the problem of climate change. Rather, my point is to highlight that environmental change will not be experienced by individuals alone – it is a change that will impact us collectively, with its most immediate effects being felt locally, where we live. Therefore it seems that at the very least an understanding of environmental change that incorporates collective understandings of both what that change is and how it might be negotiated is called for, with community having a more prominent role to play in doing so than current Government policy would suggest. As Zygmunt Bauman observes:

> 'We all need to gain control over the conditions under which we struggle with the challenges of life – but for most of us such control can only be gained *collectively*. Here, in the performance of such tasks, community is most missed; but here as well, for a change, lies community's chance to stop being *missing*. If there is to be a community in the world of the individuals, it can only be (and it needs to be) a community woven together from sharing and mutual care; a community of concern and responsibility for the equal right to be human and the equal ability to act on that right.'
>
> (Bauman 2001, p. 149-150 emphasis in original)

# Chapter 7 Conclusions

At the end of the Introduction to this thesis I stated that I hoped to produce well informed, detailed answers to questions of key academic and policy relevance. The starting point for the thesis was contained in the following quote in which an empirical gap in knowledge relating to the role of community in facilitating positive environmental change was identified:

> ‘What is missing from this evidence base, at present, is unequivocal proof that community-based initiatives can achieve the level of behavioural change necessary to meet environmental and social objectives.’
>
> (Jackson 2005, p. 133)

From what appeared an apparently straightforward empirical gap to contribute knowledge to, this thesis evolved into a critical appraisal of the role of community in tackling climate change in which the central concept within it, community, became the focus. It moved from ‘what can community do?’ to ‘what is community?’ While not a new question in and of itself, the thesis argued that within the literature on the governance of environmental change it had not been adequately addressed. The nature of community as anything other than a positive force for change remained largely unquestioned, despite the extensive literatures within anthropology, sociology and political science that have drawn attention to its contested, partial and above all political nature. The starting point for the thesis therefore became one in which by first asking what community is, a new perspective could be drawn on what it can do. The second starting point for this thesis was to argue that individualist, systemic and practice based approaches to theorising the governance of environmental change, while highlighting the importance of social

context, had an empirical blind spot in relation to the role of community. This blind spot required a more rounded understanding of what community is, grounded in the views of those purported to be its members, before an understanding of how it encouraged or inhibited positive environmental change could be fully understood. In addition, the crucial role of social interaction in shaping action across a range of contexts within and beyond the household was lacking from existing theories of the governance of environmental change. The final starting point for this thesis was that existing research had failed to address the political and policy context in which community is being tasked with tackling climate change, and that the neo-Foucauldian framework of governmentality provides a crucial, and currently missing, perspective through which to do so. Based on these starting points I developed a series of research questions. These were, within the context of efforts to use community as a means of encouraging positive environmental change:

How, if at all, does community contribute to tackling climate change?

1. What does community mean?
2. What effects, if any, do these meanings have on efforts to facilitate environmental change?
3. What is the role of community in tackling climate change?

They were questions that suggested the need for a particular methodological approach capable of allowing a wide range of voices to be heard, to which a qualitative case-study approach was ideally suited. By adopting a case study design that incorporated policy officials, community practitioners and community members this thesis offered an account of the role of community in tackling climate change

that has presented a broader perspective theoretically, empirically and methodologically to existing research.

In the remainder of this concluding chapter I will summarise the key empirical and theoretical contributions made by this thesis, together with providing a series of policy recommendation, reflections on the process of conducting the research, and outlining plans for a future research agenda that focuses on developing the critical perspective.

## *7.1 Summary of findings and key contributions*

The *empirical contributions* to the literature on the governance of environmental change were developed within Chapters 4-6 of this thesis.

Chapter 4 addressed the first sub-question this research asked: within the context of efforts to use community as a means of encouraging positive environmental change, what does community mean? The most significant finding within this chapter was the conflict between the instrumental understanding of community as a delivery-mechanism for government policy on carbon management and the normative understanding of community based on social relations and identification with place held by community members.

The dominant policy approach to carbon management focuses on small scale behaviour change and the delivery of technological fixes aimed at improving carbon efficiency to passive consumer-citizens. Firmly rooted in individualist understandings of the governance of environmental change, such an approach does little to challenge existing social practices or patterns of normal behaviour (see Section 2.1). Further evidence for this was provided in Chapter 5 which addressed the second sub-question of this thesis: What effects, if any, do these meanings have on efforts to govern environmental change through community? Participants

engagement in the three LCCC projects was shown to be a performance of community that matched their understanding of its social and value laden role, with limited evidence of a shift towards low(er) carbon lifestyles having occurred.

Building on these points, Chapter 6 then broadened the empirical focus of the thesis to ask: what is the role of community in tackling climate change? The key empirical contribution of this chapter was to highlight that the LCCC served as a means by which to enrol others into DECC's understanding of both what community is and what it can do in relation to tackling climate change based on a techno-centric, managerialist framing of the problem. It highlighted the increasing instrumentality within the LCCC in which the role of the social as a mechanism of change was gradually removed. By presenting a genealogy of the LCCC from inception to final evaluation report the chapter traced the decreasing interest within DECC in the role of community as anything other than a delivery-mechanism for low-carbon technology.

The *theoretical contributions* made by this thesis centre on the critical perspective from which the research was approached. The starting point in the development of this critical perspective was to incorporate a conceptual framework based on understandings developed in the literatures on the anthropology, sociology and politics of community that it is partial, political and performed (e.g. Frazer 1999; Bauman 2000, 2001; Little 2002; Fremeaux 2005; see also Section 2.2.). In order to develop an understanding of *how* the performance of community actually happens, I then introduced the work of Erving Goffman on social interaction (Goffman 1959, 1969, 1974, 1983). Through the concepts of front and backstage, frames, the norms concerning involvement and stigma, I argued that Goffman provides the analytical tools necessary to understand how community is performed, and how multiple types

of community are constructed and contested. Then, having understood that community is performed in multiple ways and used Goffman to understand how these performances unfold, I argued that there was an urgent need to understand that community is not just performed but also orchestrated or *scripted*. Here, the neo-Foucauldian framework of governmentality as detailed in the work of Miller and Rose (1990; Rose and Miller 1992, 2008) and Dean (2010) provided the means by which to understand how the performance of community in the LCCC was tightly controlled by DECC through its ability to structure the field of action (*cf.* Dean 2010).

The conceptual framework adopted for this research has, to my knowledge, not been applied previously to examining the role of community in tackling climate change. Analysing the LCCC through it produced three key theoretical contributions to the literature on the governance of environmental change.

First, introducing a critical analysis of community based on evidence from the people responsible for creating, administering, evaluating and participating in the LCCC highlighted that what it is, and what it can do, depended fundamentally on the frame or perspective through which it was being viewed. The range of understandings of community presented revealed the complexity of the concept, providing valuable theoretical insights that challenge the normative assumptions present in much of the existing literature on the governance of environmental change. While these debates have existed within the wide-ranging literatures devoted to community for many years, they have hitherto been largely absent from the literature on the governance of environmental change (see Section 2.1). In particular, revealing the role of community within the LCCC as an instrumental tool to be appropriated

towards meeting DECC's policy goals raises important questions regarding whose objectives it is being tasked with fulfilling; those of the governed or the governing?

The second theoretical contribution of this thesis focuses on the effect different meanings of community have on efforts to facilitate positive environmental change. Framed instrumentally, and firmly grounded in individualist understandings of human behaviour (see Section 2.1), the LCCC projects did little to challenge the social dynamics and patterns of normal behaviour within the backstage of the household (see Chapter 5). Here, the insights provided by analysing the LCCC projects through the theoretical lens of Erving Goffman's work on social interaction provided particularly useful. Participation in the respective LCCC projects was shown to be the performance of a front that matched individual's understanding of community as a social process through which to present a civic-minded version of self, rather than a means through which to present an overt display of environmental concern (*cf.* Moisander and Pesonon 2002; Horton 2003; Hargreaves 2008, 2011). The research further revealed the context dependent social acceptability of talking about carbon, energy or climate change. While a number of interviewees were prepared to cajole and chastise others into more environmentally friendly behaviours in the workplace, very few spoke of attempting to do so within the context of their neighbourhood or other social networks. Where such conversations were taking place, they were restricted to saving energy, with climate change or broader environmental concerns remaining unspoken. Context was therefore crucial in shaping how people responded to the LCCC projects, although the community context was less successful in encouraging positive environmental change than current rhetoric suggests. These are important insights to draw attention to as they raise fundamental questions of the ability of community to meet the claims being

made of it. Based on the empirical evidence presented in this thesis, its second theoretical contribution is therefore that within an instrumental, individualist framing community does little to contribute towards understanding how to encourage positive environmental change as it offers little different to that which has gone before.

The third theoretical contribution of this thesis is provided by the analysis of the LCCC through the framework of governmentality. By tracing how the LCCC emerged, existed and changed over its two year duration this thesis has shown how DECC structured the field of possible action to control both what a low carbon community is and what it can do. In doing so, this thesis revealed that rather than serving to develop an understanding of the role of community in tackling climate change, the LCCC was about enrolling others into DECC's understanding of both what the problem is and how to go about solving it. From this perspective, the narrow, instrumental focus of the LCCC projects on increasing energy efficiency within carbon-conscious consumer-citizens households represents the successful translation of DECC's understanding of the problem of how to tackle climate change. Yet what a governmentality analysis also contributes is the way in which the 'messy actualities of social relations' (O'Malley *et al.* 1997, p. 509) can result in efforts to govern at a distance going astray when they meet their target. In particular, the apparent failure in each of the three project areas studied to successfully impose a subjectivity of the carbon-conscious consumer citizen, with a resulting shift in behaviour towards a low(er) carbon lifestyle, on participants. This is where the theoretical insights offered by analysing the LCCC through the lenses of Goffman and governmentality combine to provide a richer understanding of how, if at all, community contributes to tackling climate change than has been evident in previous research.

The final contribution made by this thesis is *methodological.* To my knowledge, this is the first case study of its kind to include the political and policy contexts, and their implications, on the role of community in tackling climate change. I argued that they were crucial contexts missing from the existing literature. By not incorporating them into the research design, potentially important contexts in shaping how, if at all, community can contribute to tackling climate change were missing. Therefore the scope of the final case study design (see Section 3.2.2), which included tracing the links between policy makers, the expert network, community practitioners and participants – provided a case study in which the 'polyphony of voices' (Flyvbjerg 2001) across the range of parties involved in the LCCC could be heard. As I argued in Section 3.2.; the case study is ideally suited to the in-depth exploration of context-dependent social phenomena (Flyvbjerg 2001; Yin 2009). In addition, the 'complexities and contradictions of real life' (Flyvbjerg 2006, p. 237) that case-studies can reveal are often a sign that the study has revealed a particularly detailed problem worthy of the effort. The key methodological contribution made by this thesis, and where it has contributed a more 'nuanced view of reality' (Flyvbjerg 2006, p. 223), is therefore the inclusion in my case study design of the previously unexamined political and policy contexts. Including them has served to provide the explanatory depth required to produce a case study with 'the force of example' (Flyvbjerg 2006, p. 228).

The *overall conclusion* to draw from this thesis is that whatever potential community may have in tackling climate change it is unlikely to be realised through an instrumental framing based on individualist approaches to governing environmental change. By excluding alternative understandings of community and models of environmental change from the field of possible action, what remains can

only ever represent at best a partial set of solutions to the task of tackling climate change.

## *7.2 Some words for practitioners*

From a practitioner perspective, the key message to take from this thesis is that while the LCCC claimed to be a ‘test-bed’ (DECC 2009, p. 1) through which to gauge the ability of community to tackle climate change, in reality it was anything but. By closely controlling what a low carbon community is, what it can do, and how it is evaluated, the ‘invited space’ (Cornwall 2008) offered to practitioners limited their options from the outset. The problematic reality of community for practitioners leading LCCC projects was, therefore, not the apparently limited outcomes, but the entire *process*. Based on that understanding, providing recommendations to practitioners is itself problematic. However some general observations and suggestions for practitioners can be made.

Firstly, it is not my place to suggest that I am in a position to offer the best way for community practitioners to go about structuring any project they may either be developing or running. Throughout this thesis I have stressed that community is far too complex an entity about which to make such sweeping generalisations. Indeed I have heavily critiqued DECC for doing so as part of the LCCC evaluation and its efforts to make ‘like-with-like’ comparisons. That said; the first observation I would make is for practitioners to be sensitive to what it is about *their* community, however fragmented, partial or non-representative of any wider community it may be, that can be used as the basis for encouraging participants to engage with *their* project. This could be related to place, such as in the examples researched here, but also opens up the possibility for broader conceptualisations of interest-based communities that may be virtual rather than physical.

Secondly and closely related to the first point, all of the practitioners interviewed for this research assumed that despite their involvement being motivated by a mix of environmental and social concerns, a key motivating factor for other participants would be financial. Yet as this research and much which has gone before it has shown, this is at best a doubtful assumption to make. The discourse of 'save energy, save money' is so ubiquitous that however novel a method you provide of presenting it, it will not represent a moment of enlightenment to community members who until you mentioned it were previously unaware of such a possibility existing. More problematically, it is also a message that is difficult to substantiate and impossible to guarantee. In a world of rising energy and commodity prices, ensuring financial savings in absolute terms is near impossible, as many would-be participants are only too well aware. Of equal importance, it reduces individuals to the status of consumer, rather than citizen, parent, resident, supporter, or whatever other *collective* term can be applied that implies an association with community based on something other than purely individual concerns. These points lead to my second general observation. Based on an awareness of where community boundaries may lie, practitioners understanding of what drew individuals together within those boundaries in the first place offers a means through which to offer alternate forms of engagement that recognise the collective, social nature of community. It suggests a move beyond relying on financial savings as the motivational hook on which to hang their project, and opens up a range of alternate problem framings that tap into whatever it is that makes their community unique.

If, however, those boundaries *are* geographical, and the goal is no more than to deliver small-scale technological fixes to households, then so be it. I am in no position to criticise, particularly if the opportunity to receive upwards of £500k in

order to do so is on offer as was the case with the LCCC. Yet as this thesis has shown, and where it has contributed to the ongoing debate regarding the role of community in tackling climate change, such an approach is likely to achieve limited success – where success is defined in terms of long-term positive social or environmental change. It is also likely to achieve limited success as such projects serve to reinforce rather than challenge the understanding held by DECC, and the UK Government more broadly, of the role of community as a means through which to deliver market-based solutions to tackle climate change; solutions that do little to address the problem they are notionally setting out to solve.

This thesis set out an argument that community is partial, political and performed; and that that performance can be *scripted* by others. Yet within the LCCC, and in particular the resultant knowledge produced through its official evaluation, community was presented as homogenous and devoid of adversarial or confrontational politics. Community was, however, shown to be quite capable of following a script written by others. Reflecting on these points, my final general observation to practitioners would be that trying to make themselves relevant to DECC on DECC's terms is, ultimately, a goal in which they are unlikely to succeed. DECC are, after all, on a mission to power the country and protect the planet. The relevance for community within such a project seems limited at best. Yet that by no means suggests community does not have a role – far from it. It is just that trying to make community projects fit DECC's understanding of what that role is requires conforming to a range of pre-defined criteria that fail to fully recognise the social aspects of community, and the role they may play in tackling climate change. And even when these aspects are acknowledged, such as in the final LCCC evaluation report, they are downplayed. Yet tackling climate change is as much a social as

physical or technical challenge. Perhaps practitioner efforts could be best directed in highlighting this to policymakers.

### *7.3 Policy recommendations*

Two key policy recommendations emerge from the details presented in thesis. On the evidence presented here, DECC appear open to the same criticisms and critiques made of the New Labour period of Government in which it appropriated community to meet its instrumental social policy goals (Little 2002; Fremeaux 2005). The narrow, instrumental understanding of community as a delivery mechanism for DECC policy served to mask the normative understanding held by community members (see Chapter 4). The role this may play in encouraging or facilitating the environmental change that the UK Government is legally obligated to achieve under the Climate Change Act (2008) was therefore removed from the LCCC. However tackling climate change is not simply a technological issue. Therefore the first policy recommendation to draw from this thesis is for DECC to be open to alternate ways of understanding community that incorporate the social aspects and the role they may play in achieving positive environmental change. This would involve recognising both the potential and limits of a community-based approach to tackling climate change that acknowledge its partial, contested nature. Crucially, it also involves recognising that community is more than simply a delivery mechanism for Government policy aimed at improving energy efficiency within carbon-conscious consumer-citizens households.

As argued throughout this thesis, community is a multiple, contested term open to multiple interpretations regarding both what it is and what it can do. Yet by structuring the field of action within the LCCC to match the narrow, instrumental problem framing of how to tackle climate change held by DECC a range of alternate

worldviews and understandings of community were excluded from consideration. In particular, the requirement to focus on 'tried and tested' (DECC 2009, p. 8) methods, with the incentive of securing funding of up to £500k if they did, resulted in applicants constructing projects conforming to DECC's understanding of both what the problem of climate change is, and how to go about solving it (see Chapter 5). Yet doing so achieved little in the way of positive environmental change. This was evidenced in Blacon where nearly as many households that recorded a decrease in energy usage recorded an increase during the course of the Blacon Energy Management Program; leading one practitioner to lament at the end of the project that: 'all my methods have failed' (Practitioner-Blacon). Yet far from being his methods, they were the 'tried and tested' methods of others. Therefore rather than control the field of action available to community, policymakers should embrace the range of community perspectives and worldviews that groups like Lammas offer in order to gain a greater understanding of the role of community in tackling climate change. In particular, policymakers need to pay greater attention to the social role of community rather than relying on using it as an instrumental tool of Government through which to deliver energy efficiency savings. However, this recommendation may prove overly optimistic. The LEAF fund (discussed in Section 6.5), the latest policy successor to the LCCC, offered community projects yet another tightly controlled space through which to address DECC's mission of powering the country and protecting the planet based on a techno-centric, managerialist framing of the issues of climate change and energy security.

The second recommendation follows directly from the first, and relates to the question of what effects do these different meanings have on efforts to govern environmental change through community. Understood and applied instrumentally,

community was shown to have achieved limited positive environmental change as it did little to challenge existing patterns of consumption or what constitutes normal behaviour within households. This thesis therefore provides additional empirical evidence of the limited effectiveness of applying individualist approaches to the governance of environmental change, irrespective of whether delivered through a community project or not. The evidence presented here, particularly that from the Meadows where they struggled to give away free solar PV arrays (see Section 5.2), provides further justification for a move beyond simplistic models of human behaviour that assume cost is one of the primary determinants of an individual's decision making process. The second recommendation is therefore to incorporate a multiple-model approach (Wilson and Chatterton 2011; see also Section 2.1.3) into the policy-making arena in order to broaden the awareness of how positive environmental change might be facilitated. Using multiple-models that incorporate a range of perspectives drawn from social-psychology and sociology on how to theorise and explain the governance of environmental change provides an opportunity to challenge the dominant theories currently employed by policymakers. This may prove to be an overly optimistic recommendation, particularly in light of the recent launch of the Green Deal in the UK that is firmly grounded in individualist understandings of human behaviour, yet it is one that needs to be repeated in the hope that through constant repetition it may come to have some small impact.

## *7.3 Reflections on the process and recommendations for further research*

As Pahl observes, any attempt to write an article on community is asking for trouble (Pahl 2005, p. 620). This thesis has sought to address questions of community that have been the subject of sociological enquiry for well over a hundred years. In

addition, it has done so by asking what its role is in tackling climate change, an issue described by some as the greatest threat to our modern way of living during the course of the coming century. There are therefore a number of issues inherent within this research that serve as limitations on the contribution to knowledge it is capable of making. Those of greatest significance are the limits of time and limits of scope of a research project of this nature.

The empirical research covered events over a roughly two-year period between March 2010 and February 2012. Within this short period an election was held in the UK that resulted in a change of government and repurposing of the empirical focus of the thesis, namely the LCCC (see Section 6.4). While I have attempted to record and reflect on the implications of this change, further research over a longer time period is required to fully develop an understanding of the implications of a shift in political rationality brought about by a change in Government on the ability of community to tackle climate change.

In addition, further research over an extended period of time is required to explore how community can contribute to understanding the relationship between social transformation and social cohesion in response to climate change (*cf.* Amit 2002). Attempting to measure social or environmental change at either the community, household or individual level over a relatively short time period, such as that available in a single thesis, represents a moment in time that does little to provide a sense of the path that change is following, or of how it is negotiated (*cf.* Shove and Walker 2007). This, I would argue, is a long-term research priority given the predicted impacts of climate change during the course of the twenty-first century. The Low Carbon Transition Plan (HM Government 2009) set out a technology-led

path to a low-carbon future as part of the United Kingdom Government's response to climate change, but with little attention to the social implications of such change.

The scope of this thesis, covering community and the governance of environmental change in response to climate change, was broad. Yet in order to render it manageable a research design focussed on the particular aspects I considered most relevant was necessary. These emerged from the literature review and pilot interviews that highlighted the importance of the political and policy contexts in which community was being tasked with tackling climate change. As argued in Chapter 3, it was a deliberate strategy through which to increase the *depth* of explanation offered by this thesis in order to construct a case study with 'the force of example' (Flyvbjerg 2006, p. 228). However given more time in which to complete the research both the scope and methods employed would have been wider. For example, the inclusion of additional Phase One winners in the design, together with the inclusion of additional policy officials and ministers from within DECC would have provided additional breadth to the explanations presented. It would also have provided extra explanatory depth to have interviewed additional householders within the three areas studied, including both those who had participated in the respective projects and those who had not. In addition, while I kept a series of research diaries in which I recorded observations and reflections relating to my research, together with notes on informal conversations held with numerous people, a more in-depth ethnographic analysis was not possible across all the research sites due to my focus on developing a grounded theory based on the interview and documentary evidence I collected.

Based on these reflections, two general recommendations for future research can be made. The first is a straightforward call for more case studies to be conducted

across more community projects; and secondly, for these to be conducted over a longer time period. These are particularly relevant points given the still limited evidence base on the role of community in tackling climate change.

The second is for future research to heed Walker's assertion of the need to maintain a critical perspective when evaluating the role of community in tackling climate change (Walker 2011). The partial, political and performative nature of community highlighted in thesis has provided strong supporting evidence of the need to do so. To begin the development of a future, *critical* research agenda, a series of four further recommendations can be made.

First, this thesis has shown that community is a far more complex entity than has previously been acknowledged in the literature on the governance of environmental change. Most importantly, it has done so by providing empirical evidence grounded in the views of participants across each layer of the LCCC. Future studies should therefore be wary of defining community one-dimensionally. In particular, defining community based on geographical area takes little or no account of whether, if at all, residents within it interact with one another (Lee and Newby 1983). As Harper observes, reaching a definition of community for expedient reasons confuses a concept narrowly defined in order to measure comparable elements, with one built from the ground up which, crucially, includes the points of view of community participants (Harper 1992). Future research should therefore consider how best to engage with members of the purported 'community' under investigation in order to establish, how, if at all, and with what consequences, they relate to the concept.

Second, this thesis has shown the important role played by social dynamics and the accepted patterns of what constitutes normal behaviour in promoting or

inhibiting the adoption of low(er) carbon lifestyles (*cf.* Moisander and Pesonen 2002; Healy 2003; Hargreaves 2008, 2011). However, to date, most research and policy, including that on the role of community in the governance of environmental change, has focused on the individual as the appropriate site through which to encourage change (see Section 2.1). Future research should therefore adopt a more holistic theoretical approach that focuses on specific interactions in specific situations; for example between members of a household over dinner, work colleagues during a meeting, or members of a sports team having a post-game drink (*cf.* Macnaghten 2003). Doing so would contribute a greater understanding of the impact of interactions across a range of social contexts on the uptake of low(er) carbon lifestyles.

Third, this thesis has introduced governmentality to the literature on the role of community in tackling climate change. It has shown the crucial role played by DECC in structuring the field of action (Dean 2010). By controlling the application and selection process of the LCCC they were able to define what a low carbon community was, what it could do, and how it was evaluated. In addition, this thesis has shown how DECC's problem framing of climate change as a technological issue to be addressed by improving the energy efficiency within carbon-conscious consumer citizens households has been successfully *translated* into the community sector. Yet it also showed the apparently limited effectiveness of imposing the carbon-conscious consumer-citizen subjectivity on participants (*cf.* Slocum 2004; Rutland and Aylett 2008; Paterson and Stripple 2010). The insight offered by O'Malley *et al.* (1997) that efforts to govern at a distance often go astray when they meet their target has been supported by this research. Future research could therefore focus on the unintended outcomes of such governmental processes as those in the

LCCC, in particular the effects of participants' *resistance* to being categorised as a particular form of citizen. Considering this more closely in future research, in combination with insights offered by an understanding of the role of social interaction in encouraging or inhibiting change, may provide a more detailed account of behaviour than that offered by the dominant, individualist approaches to governing environmental change. Future research should also remain aware of the political and policy context in which community is being tasked with tackling climate change by asking *how* it came to be constituted in a particular form as an appropriate response to a problem of government (*cf.* Rose and Miller 1991; Rose 1996).

Fourth, it seems self-evident that as *context* has been identified as a key determinant in the adoption of low(er) carbon lifestyles, methods that are sensitive to it be employed in future research. The application of standardising methodologies such as questionnaires to produce context-independent measures of attitudes and beliefs regarding the environment are incapable of capturing the context-dependent nature of everyday social interactions and the influence they have on behaviour (*cf.* Ungar 1994; Corral-Verdugo 1997; Heiskanen 2005). I would argue that this is particularly true in relation to research on the role of community in tackling climate change given its partial, performative and political nature. In this thesis I employed a combination of semi-structured interviews, participant and direct observation and documentary analysis that provided me with the means by which to create a detailed, context-dependent case study. Similar methods capable of capturing the context-dependent nature of communities should be adopted in future research, with ethnographic methods (e.g. Davies 1999) seeming particularly well suited. Action research techniques that enable the researcher to work alongside, or in some cases as

part of the research (e.g. Reason and Bradbury 2001; McIntyre 2008) may also provide useful additional means by which to maintain sensitivity to context. Given that social and environmental change is an ongoing, evolving process, I would also suggest that future research adopts a longitudinal approach in order to understand how the community context evolves over time. Two additional analytical techniques also seem suited to the task. They are critical discourse analysis (e.g. Fairclough 2001, 2003, 2010), with its focus on the relationship between language and power, and narrative analysis (e.g. Riessman 2008), with its focus on meaning.

Finally, in order to develop and maintain the critical perspective Walker calls for, I believe that future research on the role of community in tackling climate change should incorporate the four value-rational questions that guide a *phronetic* approach to social science:

1. Where are we going?
2. Is this desirable?
3. What should be done?
4. Who gains and who loses, and by which mechanisms of power?

(Flyvbjerg 2001, p60)

By doing so, the ‘more problematic reality of community-based action than might be evident in policy and campaigning rhetoric’ (Walker 2011, p. 778) may be revealed, and steps taken to address it.

## *7.4 Final thoughts*

Far from being a totalising concept such as Tönnies *Gemeinschaft* view of community with its socially enforced patterns of behaviour, the commitment to a low carbon community and lifestyle modifications made as a result by participants in the LCCC were limited by the multiplicity of social environments in which they exist and, crucially, the social dynamics and accepted patterns of what counts as normal behaviour within them. Furthermore carbon was shown to be a very narrow, abstract idea to form a community around, requiring questions to be asked as to what are the symbols around which a low carbon community would be bound in order to encourage widespread identification with its goals.

While it may turn out to be a descriptive characteristic of communities in the future (i.e. in a post-transition world as envisaged in the Low Carbon Transition Plan), none of the areas studied for this research was a low carbon community. That is not to say that none of them were communities – far from it. I was, and remain, particularly struck by the strength of attachment the people I interviewed in Blacon felt to the area, while in Muswell Hill the steering group members and volunteers who helped deliver the project were also highly committed to achieving its goals. The Meadows residents also took pride in their local area and were keen to see its less than favourable reputation be improved, with many of them seeing the LCCC project as a  means of doing so.

Community was clearly something many participants in this research valued, and as such may offer a site for positive environmental change. But it is difficult to tell from the LCCC as it had very little to do with either sociological understandings of community or non-individualist based approaches to the governance of environmental change. The role that community may play as an appropriate site

through which to negotiate and understand social change in response to the challenges posed by climate change therefore remains largely unknown.

Yet rather than pondering the symbolic nature of a low carbon community and what it might look in 2050, there remains a more fundamental, problematic and current issue in need of addressing. This is of course the continued reliance in policy based responses to environmental change that see improving energy efficiency as the solution, with the market the best mechanism through which to deliver it. To continue with a problem framing that sees individuals as little more than self-interested, money-motivated consumer-citizens on whom policy interventions may be imposed seems at best counter-productive, at worst doomed to fail. If nothing else, I hope this thesis provides some small contribution to challenging the primacy of that assumption. Without changing the problem framing, nothing is going to change – regardless of whether delivered via community or not.

This thesis therefore concludes having contributed at best partial answers to the questions it was asking. This is not surprising given the complexity of the central concept that guided it: community. I simply could not hope to have covered the full range of understandings of community and their respective implications on its ability to tackle climate change. Yet this in no way diminishes the contributions it has made. My intention in conducting this research so was to create new ways of understanding, and provoke debate about, the role of community in tackling climate change. It is a task I hope to have accomplished. I end this thesis with a call for future research to maintain the critical perspective adopted here, and in so doing contribute to 'the ongoing social dialogue about the problems and risks we face and how things may be done differently' (Flyvbjerg 2001, p. 61).

# Appendices

## *Appendix 1 Introductory email to LCCC gatekeeper*

**DECC Low Carbon Communities Challenge winners**
Baldwin Richard Mr (ENV)

**Sent:** 18 March 2010 12:31
**To:** xxxxxxxx

Dear XXXX,

I'm a PhD student at UEA on an ESRC funded studentship entitled 'Tackling Climate Change Through Community'. I'm interested in how different notions of 'community' can be used as a means of encouraging individuals to adopt low(er) carbon lifestyles - and the policy implications that arise, and as such am particularly interested in the DECC Low Carbon Communities Challenge.

I noticed from the 'Community and stakeholder engagement' strand within the ESRC 'Energy and Communities' call that the possibility for collaborating with the DECC winners exists. Whilst I realise that I am not part of a proposal under the call I was hoping that as my research work is ESRC funded and so closely tied to some of the call's objectives there may be some scope for me to work with the community winners, and as such was hoping you may be able to provide me with some information on how I may go about doing so.

I shall keep my initial email brief, however if you wish to know anything further about my planned work please do feel free to ask.

Many thanks in advance,

Richard.

## *Appendix 2 Introductory letter to LCCC project organisers*

**Research proposal: Examining the impacts of community-based initiatives aimed at tackling climate change**

My research aims to investigate the impacts and effects of using community as a means of engaging people with climate change as an issue. In particular, whether appeals to community encourage engagement with climate change across a broad section of society, and the behaviour and lifestyle changes that people are willing to make as a result. To that end, the Low Carbon Community Challenge (LCCC) winners are of particular interest to me as they are using community as a means of encouraging both behaviour change and a transformation in the way energy is provided, as opposed to the more traditional approach of existing Government campaigns such as 'Act on $CO_2$' that have attempted to change behaviour one individual at a time.

The Sustainable Blacon project is of particular interest to me due to it being the only project to make a direct reference to spreading good practice through participant's social networks. This is an area that I am particularly interested in exploring further as there are many as yet unanswered research questions on the effects of an individual's wider social networks on their own behaviour as well as their ability to influence others. As such Sustainable Blacon would offer my research the chance to compare several of the other LCCC winners against your own in order to assess what impacts these different approaches to encouraging change have on an initiatives outcomes.

**Research outline**

At this early stage my research plans are flexible and open to negotiation with you. It is anticipated that at a minimum the research would involve conducting interviews and/or focus groups with key stakeholders and community members as well as participating in meetings and discussion forums related to the project. The research would be as flexible as possible in order to fit around the requirements of community members and would aim to be a learning experience for both myself and the community by encouraging reflection on some of the issues related to both climate change and community engagement in such initiatives.

**About me**

I am a PhD student at the University of East Anglia (UEA). I have a BSc in Environmental Sciences from Queen Mary, University of London, and an MRes in Environmental Social Sciences from UEA. I have previously worked on behavioural change initiatives for Brighton and Hove City Council, conducted consultancy work on behalf of the London Development Agency on creating a sustainable Olympics legacy, and conducted focus groups for Global Action Plan's 'Eco-teams' project.

At this initial stage I would be most grateful for the opportunity to conduct a brief interview – either in person or by phone – to discuss my research further and would welcome any questions or queries you may have related to my proposal. Please let me know a suitable time and means by which to contact you to discuss this further. Alternatively I am available at r.baldwin@uea.ac.uk or on XXXXXX.

Richard Baldwin

*Appendix 3 Interview request sent to participants*

## Researching Sustainable Blacon: what difference does a community-based approach make?

Hello. My name is Richard Baldwin. I'm a PhD student at the University of East Anglia (UEA) in Norwich researching the role that community can play in encouraging sustainable lifestyles. I am currently researching community-based projects in North London, Nottingham and now Blacon!

As part of my research I am hoping to interview a number of people who have been involved in some way with the Sustainable Blacon project – for example people who have volunteered for the project, visited the Eco Home or participated in the household energy saving trials – with the aim of finding out a bit more about what the experience has been like.

By participating in my research you will be helping me to explore what difference a community-based approach makes towards encouraging sustainable lifestyles, and also how different communities across England are approaching the task. The findings from my research will be shared with each of the participating communities to help them understand how the different approaches they are taking affect what is being achieved. The interviews should last no more than an hour and would be treated with the strictest confidence. What's more, as a thank you for your time, you will be entered into a prize draw to win a £25 Marks & Spencers gift voucher.

If you are interested in taking part in my research or have any questions relating to it, please contact me on 07878 374 964 or r.baldwin@uea.ac.uk to find our more information or to arrange a time and date for interview.

Many thanks in advance of your interest!

Richard Baldwin
School of Environmental Sciences
University of East Anglia
Norwich NR4 7TJ

Ph:07878 37 49 64
Email: r.baldwin@uea.ac.uk

*Appendix 4 Sample interview protocol*

# Community Members Interview Protocol

**Aim:**
- To gain understandings about how and why the CM became involved in the LCCC and to understand their motivations and expectations

**Interview Objectives**

Provide insights into CM:
- understandings of 'community'
- motivations and expectations of LCCC initiative
- views on how involvement (both social and technological) shaped the outcomes of the LCCC
- evaluate their involvement

## 1. Background / Preamble

- PhD student @ UEA interested in how community is being used to address the challenges of climate change
- Context of interview – them as member of LCCC that is seeking to change behaviours and energy provision as part of Gov't's climate change obligations
- *Aim and objectives* – they're the expert, I'm the interested questioner – please talk freely and without worries about 'right' or 'wrong' answers
- Confidentiality chat
- Consent form completed?
- Today will be recorded? And transcribed? Length max 60 mins

## 2. Background on respondent and their involvement with LCCC

- How long have you lived in the area and in your current house?
- To begin with could you tell me a bit your involvement with Sustainable Blacon / Meadows / Muswell Hill LCZ?

**Prompts:**
- How did you get involved? / How did you hear about it?
- Why did you get involved? **(Motivation)**
    - Environment / Costs / Other people involved / Community?
- Was anyone you knew already involved?
- Do you know many other people who are involved? **(Social Norms)**
    - How important is it that other people you know are involved?
- Did you talk about it with anyone else you knew?
- Had you heard of either the LCZ or MHSG before you got involved?
    - Yes – was that a factor in becoming involved? **(Trust)**
    - No – what was it about the LCZ/MHSG that made you get involved?
- What did you want to get out of your involvement?
- What have you been doing as part of your involvement?
    - Meetings / anything participatory or all individual?
- Have you set yourself any goals? i.e. energy/money saving of a certain %

- How successful do you feel that you have you been in doing so? Why / why not?
    - What has helped/hindered you to achieve it?
- Are you planning on having a home energy efficiency makeover once the program is over?
    - Yes/No – how important was that in deciding whether to get involved?
- Have you been sharing your experiences of the LCCC with other people?
    - Why/why not?
- What have you learnt from being involved?
- Were/are you interested in environmental issues before you became a part of the LCZ?
    - Has that changed as a result of LCZ? e.g. Awareness/attitude towards sustainability issues / climate change? (Is CC an issue for them?)

- What sorts of changes have you made as a result of your involvement? **(think PRACTICE or BEHAVIOUR change here)**
    - Any changes to the way you live in your house / travel / eat?
    - Not leaving things on standby, overfilling the kettle?
    - Any changes to the way you view CC?

- Overall, how would you rate the experience of being involved in the programme?
    - Positives / Negatives
- How (or would) would you like to see it continue?

**3. Community**

| Moving on, I'd like to ask you a few questions related to where you live: |
|---|

**Prompts:**

- Prompt/probe for use of 'community'
- Advantages/disadvantages of communities?
- Boundaries
- Cross-overs between communities?

➢ To begin with, how could you describe the area to me?
- ➢ How long have you lived there?
- ➢ Do you feel part of a community there? How/In what ways?
- ➢ How does it fit in with the wider community? (Is there a 'wider community'?)

- ➢ Are you involved in any other community organisations or voluntary work?

➢ What impact if any has the LCCC programme had on your engagement in broader community life?

- New relationships formed?
- Taking up voluntary work?
- Stronger sense of agency?
- Do you feel more a part of a community as a result of your involvement?
- How, if at all, does Muswell Hill fit with how you see community?

**4. Climate change**

| Moving on once more, the next few questions I'd like to ask you are about your views on climate change: |
|---|

- What do you consider to be the principal drivers of climate change?

**Prompts:**

  - GHG emissions / consumption / production?
  - Responsible for – GHG/Business/China/India etc
  - Responsibility to act – individual/community/government
  - Sustainable development
  - Local vs. Global
  - Technology vs. behaviour change

- How do you think your views compare with those of your community members?
  - Do they need to share similar views to your own? Why / why not?
  - If they don't, what aspects about the community itself do you think might make them participate despite their different views on CC?

**5. Wrap up**

| That's just about the end of our interview today.<br>Was there anything I haven't asked you about that you'd like to add?<br>Is there anything that you would like to ask me?<br>You have my contact details on the consent form so feel free to get in touch.<br>I'll be in touch with you again over the coming months<br>And one last thing – if there is anyone else you can think of who you think I should talk with please let me know.<br>And will of course offer you a copy of publications – if you'd like them |
|---|

## *Appendix 5 Interview Consent Form*

**Research Project on Tackling Climate Change through Community**

# Consent Form - Confidential data

I understand that my participation in this project will involve taking part in a semi-structured interview that will take approximately 60 minutes of my time.

I understand that participation in this study is entirely voluntary and that I can withdraw from the study at any time without giving a reason.

I understand that I am free to ask any questions at any time. I am free to withdraw or discuss my concerns with the research team. I agree that data obtained in the interview may be utilised in discussion with other researchers, in any ensuing presentations, reports, publications, websites, broadcasts, and in teaching (see details in paragraph below).

I understand that the information provided by me will be held confidentially until 2013, such that only the researcher (Richard Baldwin) can trace this information back to me individually. I understand that I can ask for the information I provide to be deleted/destroyed at any time and, in accordance with the Data Protection Act, I can have access to the information at any time. I understand that in all publications and discussion of the research all information I give will be made anonymous with only pseudonyms and generic identifying features (e.g. profession) utilised for identification.

***I do give/ do not give*** my consent to have my details retained in a database until December 2013 so that I may be asked to take part in a follow up interview, or returned to on points requiring clarification **(delete as appropriate)**

I have been provided with sufficient information on the project to give *informed* consent to the interview.

I, ____________________________________ (NAME) consent to participate in the study.

Signed: Date:

**If you have any queries please contact**

Richard Baldwin
School of Environmental Sciences
University of East Anglia
Norwich NR4 7TJ
Ph +44 (0) 7878 374 964
Email: r.baldwin@uea.ac.uk

# Bibliography


Aiken, G. (2012). Community Transitions to Low Carbon Futures in the Transition Towns Network (TTN). *Geography Compass, 6*(2), 89-99.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes, 50*(2), 179-211.

Alcock, P. (2012). Big Society–a contradiction or a con trick? *Policy and Politics, 40*(1), 149-150.

Alexander, R. & Hunt, T. (2012). *Evaluation of Energy Management Systems Trial for Blacon Smart Energy Community LCCC Programme: Final Report.* University of Chester: Department of Geography and Development Studies

Allen, J, Sheate, W. R., & Diaz-Chavez, R. (2012). Community-based renewable energy in the Lake District National Park - local drivers, enablers, barriers and solutions. *Local Environment, 17*(3), 261-280.

Amin, A. (2005). Local community on trial. *Economy and Society, 34*, 612-633.

Amit, V. (2002). *Realizing community: Concepts, social realtionships and sentiments*. London: Routledge.

Anderson, B. (1991). *Imagined communities: Reflections on the origin and spread of nationalism*. London: Verso.

Bäckstrand, K. (2004). Scientisation vs. Civic Expertise in Environmental Governance: Eco-feminist, Eco-modern and Post-modern Responses. *Environmental Politics, 13*(4), 695 - 714.

Bäckstrand, K, & Lövbrand, E. (2007). Climate Governance Beyond 2012: Competing Discourses of Green Governmentality, Ecological Modernisation and Civic Environmentalism. In M. Pettenger (Ed.), *The Social Construction of Climate Change* (pp. 123-148). Aldershot: Ashgate.

Bagozzi, R. P., Gürhan-Canli, Z., & Priester, J. R. (2002). *The social psychology of consumer behaviour*. Buckingham: Open University Press.

Baldwin, R. (2010). Football and climate change: strange bedfellows or a means of going beyond the usual suspects in encouraging pro-environmental behavioural change? *Local Environment: The International Journal of Justice and Sustainability, 15*(9), 851 - 866.

Bamberg, S. (2003). How does environmental concern influence specific environmentally related behaviors? A new answer to an old question. *Journal of Environmental Psychology, 23*(1), 21-32.

Barker, G. (2011). Launch of the Green Deal and ECO Consultation. *Greg Barker's web log* [online] 5 December 2011. Available at http://blog.decc.gov.uk/author/gregbarker/ Accessed 12 December 2011.

Barnes, M, Newman, J, & Sullivan, H. (2007). *Power, Participation and Political Renewal: Case studies in public participation*. Bristol: The Policy Press.

Barr, S. (2003). Strategies for sustainability: citizens and responsible environmental behaviour. *Area*, *35*(3), 227–240.

Barry, A., Osborne, T., & Rose, N. (1996). *Foucault and Political Reason: Liberalism, Neo-Liberalism, and Rationalities of Government*. London: UCL Press.

Bauman, Z. (2000). *Liquid Modernity*. Cambridge: Polity Press.

Bauman, Z. (2001). *Community: Seeking Safety in an Insecure World*. Cambridge: Polity Press.

Bauman, Z. (2007). *Liquid Times*. Cambridge: Polity Press.

Bell, C, & Newby, H. (1972). *Community Studies: An Introduction to the Sociology of the Local Community*.

Blackshaw, T. (2010). *Key Concepts in Community Studies*. London: SAGE Publications.

Blake, J. (1999). Overcoming the 'value-action gap' in environmental policy: Tensions between national policy and local experience. *Local Environment, 4*(3), 257-278.

Blumer, H. (1969). *Symbolic interactionism*. Englewood Cliffs: Prentice-Hall.

Bourke, S, & Meppem, T. (2000). Privileged Narratives and Fictions of Consent in Environmental Discourse. *Local Environment: The International Journal of Justice and Sustainability, 5*(3), 299 - 310.

Bryman, A. (2006). Integrating quantitative and qualitative research: how is it done? *Qualitative Research, 6*(1), 97-113.

Burgess, J, Bedford, T, Hobson, K, Davies, G, & Harrison, C. M. (2003). (Un)sustainable Consumption. In F. Berkhout, M. Leach & I. Scoones (Eds.), *Negotiating Environmental Change: New Perspectives from Social Science* (pp. 261-292). Cheltenham: Edward Elgar.

Byrne, B. (2004). Qualitative Interviewing. In C. Seale (Ed.), *Researching Society and Culture* (pp. 179-192). London: SAGE Publications.

Cabinet Office. (n.d.). Big Society [online] Available at http://www.cabinetoffice.gov.uk/content/big-society-overview Accessed 25 January 2013

Cabinet Office. (2010) *Deputy Prime Minister highlights green deal at launch of low carbon business support project* [online] Available at http://www.cabinetoffice.gov.uk/newsroom/news_releases/2010/100819-green.aspx Accessed 19 August 2010

Callon, M. (1986). Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay. In J. Law (Ed) *Power, Action & Belief. A New Sociology of Knowledge?* (pp. 196-229) London: Routledge & Kegan Paul.

Callon, M. & Latour, B. (1981). Unscrewing the Big Leviathan: how actors macrostructure reality and how sociologists help them to do so. In K. D. Knorr-Cetina and A. V. Cicourel (Eds.) *Advances in Social Theory and Methodology: Toward an Integration of Micro- and Macro-Sociologies*. (pp. 277-303) London: Routledge & Kegan Paul.

Cannella, G, & Lincoln, Y. (2011). Ethics, Research Regulations, and Critical Social Science. In N. Denzin & Y. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (4 ed., pp. 81-90). London: SAGE Publications.

Charmaz, K. (2005). Grounded theory in the 21st century: A qualitative method for advancing social justice research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of Qualitative Research* (3 ed., pp. 507-535). London: SAGE Publications.

Charmaz, K. (2006). *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. London: SAGE Publications.

Church, C. & Elster, J. (2002). *Thinking locally, acting nationally: lessons for national policy from work on local sustainability.* York: Joseph Rowntree Foundation.

Cohen, A. (1985). *The Symbolic Construction of Community*. London: Tavistock.

Cohen, A. (2002). Epilogue. In V. Amit (Ed.), *Realizing community: Concepts, social realtionships and sentiments*. (pp. 165-170). London: Routledge.

Collins J, Thomas, G, Willis, R & Wilsdon J. (2003) *Carrots, Sticks and Sermons: influencing public behaviour for environmental goals.* Demos/Green Alliance report produced for DEFRA, London.

Communities and Climate Action Alliance Network (CCAAN). (n.d.) *Our work* [online] Available at http://ccaanet.wordpress.com/our-work/ Accessed 23 January 2013

Communities and Climate Action Alliance (CCAA). (2011). *Creating Low Carbon Communities* [online] Available at http://ccaanet.files.wordpress.com/2011/03/communities-conference-report-2.doc Accessed 23 January 2013

Cooper, C. (2008). *Community, Conflict and the State: Rethinking Notions of 'Safety', 'Cohesion' and 'Wellbeing'*. Basingstoke: Palgrave Macmillan.

Coote, A. (2010). *Cutting it: The 'Big Society' and the new austerity.* London: New Economics Foundation.

Corral-Verdugo, V. (1997) Dual 'realities' of conservation behavior: Self-reports vs. observations of reuse and recycling behaviour. *Journal of Environmental Psychology*, *17,* 135-145.

Corbett, J. B., & Durfee, J. L. (2004). Testing Public (Un)Certainty of Science: Media Representations of Global Warming. *Science Communication, 26*(2), 129-151.

Cornwall, A. (2008). Unpacking 'Participation': models, meanings and practices. *Community Development Journal, 43*(3), 269-283.

Crang, M. (2003). Qualitative methods: touchy, feely, look-see? *Progress in Human Geography, 27*(4), 494-504.

Cresswell, T. (2004). *Place: A Short Introduction*. Oxford: Blackwell Publishing.

Creswell, J. W. (2007). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. London: SAGE Publications.

Crossley, N. (2002). *Making sense of social movements*. Buckingham: Open University Press

Crouch, D. (2003). Performances and constitutions of natures: a consideration of the performance of lay geographies. *The Sociological Review, 51*, 17-30.

Crow, G, & Allan, G. (1994). *Community Life: An Introduction to Local Social Relations*. Harlow: Pearson Education.

Cruikshank, B. (1999). *The Will to Empower: Democratic Citizens and Other Subjects*. New York: Cornell University Press.

Dalby, S., & Mackenzie, F. (1997). Reconceptualising local community: environment, identity and threat. *Area, 29*(2), 99-108.

Darier, E. (1996). Environmental governmentality: The case of Canada's green plan. *Environmental Politics, 5*(4), 585 - 606.

Darier, E. (1999). *Discourses of the Environment*. Oxford: Blackwell Publishers.

Darnton, A. (2008). *GSR Behaviour Change Knowledge Review: Overview of Behaviour Change Models and their Uses*. London: Government Social Research Service.

Davies, C. (1999). *Reflexive Ethnography*. London: Routledge.

de Certeau, M. (1984). *The Practice of Everyday Life*. London: University of California Press.

Dean, M. (2010). *Governmentality: Power and Rule in Modern Society*. London: SAGE Publications.

DECC (2009) *Low Carbon Communities Challenge Application Form* [online] Available at: http://www.decc.gov.uk/assets/decc/what%20we%20do/supporting%20consumers/lowcarboncommunitychallenge/1_20091014114048_e_@@_lowcarboncommunitychallengeapplication.doc Accessed 29 Dec 2012

DECC (2010) *Low Carbon Community Challenge: Questions and Answers* [online] Available at http://www.decc.gov.uk/assets/decc/what we do/supporting consumers/lowcarboncommunitychallenge/1_20091110150541_e_@@_qalccc.pdf Accessed 22 Jan 2013

DECC (2011a) *LCCC Interim Report* [online] Available at: http://www.decc.gov.uk/media/viewfile.ashx?filetype=4&filepath=11/tackling-climate-change/saving-energy-co2/2538-lccc-interim-report-2010-11.pdf&minwidth=true Accessed 29 Dec 2012

DECC (2011b) *Microgeneration Strategy* [online] Available at: www.decc.gov.uk/assets/decc/11/meeting-energy-demand/microgeneration/2015-microgeneration-strategy.pdf Accessed 29 Dec 2012

DECC (2012) *Low Carbon Communities Challenge Evaluation Report* [online] Available at: http://www.decc.gov.uk/media/viewfile.ashx?filetype=4&filepath=11/tackling-climate-change/saving-energy-co2/5788-low-carbon-communities-challenge-evaluation-report.pdf&minwidth=true Accessed 29 Dec 2012

DEFRA (2007) *Impact Assessment of the Climate Change Bill* [online] Available at: http://www.defra.gov.uk/ENVIRONMENT/climatechange/uk/legislation/pdf/cc-impact-assessment-final.pdf Accessed 30 April 2010

DEFRA (2008a) *Climate Change Act 2008 – key provisions/milestones* [online] Available at: http://www.defra.gov.uk/environment/climatechange/uk/legislation/provisions.htm Accessed 30 April 2010

DEFRA (2008b) *A FRAMEWORK FOR PRO-ENVIRONMENTAL BEHAVIOURS* [online] Available at:

http://www.defra.gov.uk/evidence/social/behaviour/pdf/behaviours-jan08-report.pdf Accessed 30 April 2010

Delanty, G. (2003). *Community*. London: Routledge.

Della Porta, D. & Diani, M. (2006). *Social movements: an introduction*, 2nd edition. Oxford: Blackwell.

Denzin, N, & Lincoln, Y. (2011). Introduction: The Discipline and Practice of Qualitative Research. In N. Denzin & Y. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (Vol. 4, pp. 1-20). London: SAGE Publications.

Eaves, Y.D. (2001). A synthesis technique for grounded theory data analysis. *Journal of Advanced Nursing, 35*(5), 654-663.

Esterberg, K.G. (2002). *Qualitative Methods in Social Research*. Boston: McGraw-Hill.

Etzioni, A. (1996). *The New Golden Rule: Community and Morality in a Democratic Society*. New York: BasicBooks.

Fairclough, N. (2001). *Language and Power*: Longman.

Fairclough, N. (2003). *Analysis Discourse: Textual Analysis for Social Research*: Routledge.

Fairclough, N. (2010). *Critical Discourse Analysis: The Critical Study of Language*: Prentice Hall.

Fielding, N, & Thomas, H. (2008). Qualitative Interviewing. In N. Gilbert (Ed.), *Researching Social Life* (3 ed.). London: SAGE Publications.

Flyvbjerg, B. (1998). *Rationality and Power: Democracy in Practice*. London: The University of Chicago Press.

Flyvbjerg, B. (2001). *Making Social Science Matter: Why social inquiry fails and how it can succeed again*. Cambridge: Cambridge University Press.

Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry, 12*(2), 219-245.

Foucault, M. (1978). Governmentality. In B. Burchell, C. Gordon & P. Miller (Eds.), *The Foucault Effect: Studies in governmentality* (pp. 76-100). New York: Vintage.

Foucault, M. (1982). The Subject and Power. *Critical Inquiry, 8*(4), 777-795.

Frazer, E. (1999). *The Problems of Communitarian Politics: Unity and Conflict*. Oxford: Oxford University Press.

Fremeaux, I. (2005). New Labour's appropriation of the concept of community: a critique. *Community Development Journal, 40*(3), 265-274.

Gardner, G, & Stern, P. (2002). *Environmental Problems and Human Behaviour*. Boston: Pearson.

Georg, S. (1999). The social shaping of household consumption. *Ecological Economics*, *28*(3), 455–466.

Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structuration*. Cambridge: Polity.

Giddens, A. (1991). *Modernity and Self-Identity: Self and Society in the Late Modern Age*. Cambridge: Polity.

Giddens, A. (1998). *The Third Way: The Renewal of Social Democracy*. Cambridge: Polity.

Glaser, B. (1978). *Theoretical Sensitivity*. Mill Valley: The Sociology Press.

Glaser, B. (1998). *Doing Grounded Theory: Issues and Discussions*. Mill Valley: The Sociology Press.

Glaser, B. (2001). *The Grounded Theory Perspective: Conceptualization contrasted with description*. Mill Valley: The Sociology Press.

Glaser, B., & Strauss, A. (1967). *The Discovery of Grounded Theory*. Chicago: Aldine.

Glaser, B. (2002). Constructivist Grounded Theory? *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research, 3*. http://www.qualitative-research.net/index.php/fqs/article/view/825

Goffman, E. (1959). *The Presentation of Self in Everyday Life*. London: Penguin Books.

Goffman, E. (1963). *Behaviour in Public Places: Notes on the Social Organisation of Gatherings*. New York: The Free Press.

Goffman, E. (1974). *Frame Analysis*. London: Penguin Books.

Goffman, E. (1983). The Interaction Order: American Sociological Association, 1982 Presidential Address. *American Sociological Review, 48*(1), 1-17.

Guagnano, G.A., Stern, P.C., & Dietz, T. (1995). Influences on attitude-behavior relationships a natural experiment with curbside recycling. *Environment and behavior, 27*(5), 699-718.

Guba, E.G., & Lincoln, Y. (1994). Competing Paradigms in Qualitative Research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 105-117). London: SAGE Publications.

Guilleman, M, & Gillam, L. (2004). Ethics, reflexivity, and "ethically important moments" in research. *Qualitative Inquiry, 10*(2), 261-280.

Halkier, B., & Jensen, I. (2011). Methodological challenges in using practice theory in consumption research. Examples from a study on handling nutritional contestations of food consumption. *Journal of Consumer Culture, 11*(1), 101-123.

Halkier, B., Katz-Gerro, T., & Martens, L. (2011). Applying practice theory to the study of consumption: Theoretical and methodological considerations. *Journal of Consumer Culture, 11*(1), 3-13.

Hargreaves, T. (2008) Making Pro-Environmental Behaviour Work: An Ethnographic Case Study of Practice, Process and Power in the Workplace. Unpublished PhD Thesis, University of East Anglia.

Hargreaves, T. (2011). Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change. *Journal of Consumer Culture, 11*(1), 79-99.

Hargreaves, T. (2012). Questioning the virtues of pro-environmental behaviour research: Towards a phronetic approach. *Geoforum, 43*(2), 315-324.

Hargreaves, T., Nye, M., & Burgess, J. (2010). Making energy visible: A qualitative field study of how householders interact with feedback from smart energy monitors. *Energy Policy, 38*(10), 6111-6119.

Hargreaves, T., Nye, M., & Burgess, J. (2013). Keeping energy visible? Exploring how householders interact with feedback from smart energy monitors in the longer term. *Energy Policy, 52*, 126-134.

Haringey Council. (2009). *LCCC Application Form*.

Haringey Council. (2011). *Muswell Hill Low Carbon Zone: Mid-project Evaluation May 2011* [online] Available at: http://www.haringey.gov.uk/lcz_mid_project_report.pdf Accessed 23 January 2013

Harper, D. (1992). Small *N's* and community case studies. In C. Ragin & H. Becker (Eds.), *What is a Case? Exploring the Foundations of Social Inquiry*. (pp139-158). Cambridge: Cambridge University Press.

Hartley, J.F. (1994). Case Studies in Organizational Research. In C. Cassell & G. Symon (Eds.), *Qualitative Methods in Organizational Research: A practical guide* (pp. 208-229). London: SAGE Publications.

Hatton, F. (2008). Re-Defining The Good Life: An ethnography of Brithdir Mawr community. Unpublished PhD Thesis, University of East Anglia.

Healy, S. (2003). Public participation as the performance of nature. *The Sociological Review, 51*, 94-108.

Heiskanen, E. (2005). The Performative Nature of Consumer Research: Consumers' Environmental Awareness as an Example. *Journal of Consumer Policy*, *28,* 179-201.

Hillery, G. (1955). Definitions of community: Areas of agreement. *Rural sociology, 20*, 111-123.

Hinchliffe, S. (1996). Helping the earth begins at home The social construction of socio-environmental responsibilities. *Global Environmental Change, 6*(1), 53-62.

HM Government (2005) *Securing the Future: delivering UK sustainable development strategy* [online] Available at: http://www.defra.gov.uk/sustainable/government/publications/pdf/strategy/SecFut_complete.pdf Accessed 24 February 2009

HM Government (2009) *The UK Low Carbon Transition Plan: National Strategy for Climate and Energy* [online] Available at: http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx Accessed 10 May 2010

Hobson, K. (2001). Sustainable lifestyles: rethinking barriers and behaviour change. In M. Cohen and J. Murphy (Eds). *Exploring Sustainable Consumption – Environmental Policy and the Social Sciences*, (pp. 191-209) Oxford: Pergamon Press.

Hobson, K. (2002). Competing discourses of sustainable consumption: Does the'rationalisation of lifestyles' make sense? *Environmental politics, 11*(2), 95-120.

Hobson, K. (2006). Environmental responsibility and the possibilities of pragmatist-orientated research. *Social & Cultural Geography, 7*(02), 283-298.

Holstein, J.A., & Gubrium, J.F. (2003). Active Interviewing. In J. F. Gubrium & J. A. Holstein (Eds.), *Postmodern Interviewing* (pp. 67-80). London: Routledge.

Hopkins, R. (2008). *The Transition Handbook: From Oil Dependency to Local Resilience*: Chelsea Green Publishing.

Horton, D. (2003). Green distinctions: the performance of identity among environmental activists. *The Sociological Review, 51*, 63-77.

Hulme, M. (2009). *Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity*. Cambridge: Cambridge University Press.

Jackson, T. (2005) *Motivating sustainable consumption: a review of evidence on consumer behaviour and behavioural change.* [online] Available at: http://sdrnadmin.rechord.com/wp-content/uploads/motivatingscfinal_000.pdf Accessed 24 February 2009

Jackson, T. & Michaelis, L. (2003). *Policies for sustainable consumption: a report to the Sustainable Development Commision.* [online], Available at: http://portal.surrey.ac.uk/pls/portal/docs/PAGE/ENG/RESEARCH/CES/CESRESEARCH/ECOLOGICAL-ECONOMICS/PROJECTS/FBN/POLICIES.PDF Accessed 24 February 2013

Jarvie, G. (2003). Communitarianism, Sport and Social CapitalNeighbourly Insights into Scottish Sport'. *International Review for the Sociology of Sport, 38*(2), 139-153.

Kisby, B. E. N. (2010). The Big Society: Power to the People? *The Political Quarterly, 81*(4), 484-491.

Kollmuss, A. & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behaviour? *Environmental Education Research*, *8*(3), 239–260.

Latour, B. (1986). The Powers of Association. In J.Law (Ed) *Power, Action and Belief. A new sociology of knowledge?* (pp. 264-280) London: Routledge & Kegan Paul.

Latour, B. (1987). *Science in Action.* Milton Keynes: Open University Press

Lawless, P. (2011). 'Big Society' and community: lessons from the 1998-2011 New Deal for Communities Programme in England. *People, Place and Policy Online, 5*(2), 55-64.

Leach, N. (2005). Belonging: Towards a Theory of Identification with Space. In J. Hillier & E. Rooksby (Eds.), *Habitus: A sense of Place* (2nd ed., pp. 297-314). Aldershot: Ashgate.

LEAF (n.d.). *About the Fund* [online] Available at http://www.greencommunitiescc.org.uk/DECCAbout.aspx Accessed 27 January 2013

Lee, D. & Newby, H. (1983). *The Problem of Sociology: an introduction to the discipline*. London: Unwin Hyman.

Legg, S. (2005). Foucault's population geographies: classifications, biopolitics and governmental spaces. *Population, Space and Place, 11*(3), 137-156.

LGA. (n.d.). *Climate Local* [online] Available at http://www.local.gov.uk/web/guest/the-lga-and-climate-change/-/journal_content/56/10171/3574359/ARTICLE-TEMPLATE Accessed 23 February 2013

Little, A. (2002). *The Politics of Community: Theory and Practice*. Edinburgh: Edinburgh University Press.

Lorenzoni, I., & Pidgeon, N. (2006). Public Views on Climate Change: European and USA Perspectives. *Climatic Change, 77*(1-2), 73-95.

Lorenzoni, I., Nicholson-Cole, S., & Whitmarsh, L. (2007). Barriers perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change, 17*(3-4), 445-459.

Lorenzoni, I., & Hulme, M. (2009). Believing is seeing: laypeople's views of future socio-economic and climate change in England and in Italy. *Public Understanding of Science, 18*(4), 383-400.

Lovell, H., Bulkeley, H., & Owens, S. (2009). Converging agendas? Energy and climate change policies in the UK. *Environment and Planning C: Government and Policy, 27*(1), 90-109.

Luke, T. (1999). Environmentality as Green Governmentality. In E. Darier (Ed.), *Discourses of the Environment* (pp. 121-151). Oxford: Blackwell Publishers.

Macnaghten, P. (2003). Embodying the environment in everyday life practices. *The Sociological Review, 51*(1), 63-84.

Maiteny, P. (2002). Mind in the gap: summary of research exploring ‘inner’ influences on pro-sustainability learning and behaviour. *Environmental Education Research, 8*(3), 299–306.

Maloney, M.P., & Ward, M.P. (1973). Ecology: Let's hear from the people: An objective scale for the measurement of ecological attitudes and knowledge. *American Psychologist, 28*(7), 583.

Maniates, M. (2002). Individualization: Plant a Tree, Buy a Bike, Save the World? In T. Princen, M. Maniates & K. Conca (Eds.), *Confronting Consumption* (pp. 43-66). Boston: MIT Press.

Mannetti, L., Pierro, A., & Livi, S. (2004). Recycling: Planned and self-expressive behaviour. *Journal of Environmental Psychology, 24*(2), 227-236.

Marres, N. (2008). The Making of Climate Publics: Eco-homes as Material Devices of Publicity. *Distinktion: Scandinavian Journal of Social Theory, 9*(1), 27-45.

Mason, J. (2006). Mixing methods in a qualitatively driven way. *Qualitative Research, 6*(1), 9-25.

McIntyre, A. (2008). *Participatory Action Research*. London: SAGE Publications.

McKenzie-Mohr, D. (2002). New Ways to Promote Proenvironmental Behavior: Promoting Sustainable Behavior: An Introduction to Community-Based Social Marketing. *Journal of social issues, 56*(3), 543-554.

Middlemiss, L. (2008). Influencing individual sustainability: a review of the evidence on the role of community-based organisations. *International Journal of Environment and Sustainable Development, 7*(1), 78-93.

Middlemiss, L. (2009). The role of community-based organisations in stimulating sustainability practices among participants. Unpublished PhD thesis, University of Leeds.

Middlemiss, L. (2011). The Power of Community: How Community-Based Organizations Stimulate Sustainable Lifestyles Among Participants. *Society & Natural Resources, 24*(11), 1157-1173.

Miller, P., & Rose, N. (1990). Governing economic life. *Economy and Society, 19*(1), 1-31.

Moisander, J., & Pesonen, S. (2002). Narratives of sustainable ways of living: constructing the self and the other as a green consumer. *Management Decision, 40*(4), 329-342.

Moon, G., & Brown, T. (2000). Governmentality and the Spatialized Discourse of Policy: The Consolidation of the Post-1989 NHS Reforms. *Transactions of the Institute of British Geographers, 25*(1), 65-76.

Moran-Ellis, J., Alexander, V.D., Cronin, A., Dickinson, M., Fielding, J, Sleney, J., & Thomas, H. (2006). Triangulation and integration: processes, claims and implications. *Qualitative Research, 6*(1), 45-59.

Moses, J.W., & Knutsen, T.L. (2007). *Ways of Knowing: Competing Methodologies in Social and Political Research*. Basingstoke: Palgrave Macmillan.

Mouffe, C. (1993). *The Return of the Political*. London: Verso.

MPT. (2009). LCCC Application Form.

Murdoch, J., & Ward, N. (1997). Governmentality and territoriality : The statistical manufacture of Britain's `national farm'. *Political Geography, 16*(4), 307-324.

Nietzsche, F. (1969). *Ecco homo*. New York: Vintage.

Norgaard, K. (2006). “People Want to Protect Themselves a Little Bit”: Emotions, Denial, and Social Movement Nonparticipation. *Sociological Inquiry, 76*(3), 372-396.

Norgaard, K. (2011). *Living in Denial: Climate Change, Emotions, and Everyday Life*. Boston: Mit Press.

Oels, A. (2005). Rendering climate change governable: From biopower to advanced liberal government? *Journal of Environmental Policy & Planning, 7*(3), 185 - 207.

O'Malley, P., Weir, L., & Shearing, C. (1997). Governmentality, criticism, politics. *Economy and Society, 26*(4), 501 - 217.

Owens, S. & Driffill, L. (2006). *How to Change Attitudes and Behaviours in the Context of Energy.* University of Cambridge for Office of Science and Technology. [online] Available at http://www.foresight.gov.uk/Energy/How_to_change_attitudes_and_behaviours.pdf Accessed 23 February 2009

Pahl, R. (2005). Are all communities communities in the mind? *The Sociological Review, 53*(4), 621-640.

Panelli, R., & Welch, R. (2005). Why community? Reading difference and singularity with community. *ENVIRONMENT AND PLANNING A, 37*(9), 1589-1611.

Paterson, M., & Stripple, J. (2010). My Space: governing individuals' carbon emissions. *Environment and Planning D: Society and Space, 28*(2), 341-362.

Pattie, C, & Johnston, R. (2011). How Big is the Big Society? *Parliamentary Affairs, 64*(3), 403-424.

Pawson, R. & Tilley, N. (1997). *Realistic Evaluation*. London: Sage.

Portes, A., & Landolt, P. (2000). Social capital: promise and pitfalls of its role in development. *Journal of Latin American Studies, 32*(2), 529-547.

Power, Michael. (1994). *The Audit Explosion*. London: Demos.

Power, Michael. (1997). *The Audit Society: Rituals of Verification*. Oxford: Oxford University Press.

Putnam, Robert. (2000) *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.

Reason, P., & Bradbury, H. (2001). *Handbook of Action Research: Participative Inquiry and Practice*: SAGE Publications.

Reckwitz, A. (2002). Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory, 5*(2), 243-263.

Riessman, C. (2008). *Narrative Methods for the Human Sciences*. London: SAGE Publications.

Robbins, C. & Rowe, J. (2002). Unresolved responsibilities: exploring local democratisation and sustainable development through a community-based waste reduction initiative. *Local Government Studies, 28*(1), 37–58.

Rose, N. (1996). The death of the social? Re-figuring the territory of government. *Economy and Society, 25*(3), 327-356.

Rose, N. (1999). *Powers of Freedom: Reframing political thought*. Cambridge: Cambridge University Press.

Rose, N. (2000). Community, Citizenship, and the Third Way. *American Behavioral Scientist, 43*(9), 1395-1411.

Rose, N., & Miller, P. (1992). Political power beyond the State: problematics of government. *British Journal of Sociology, 43*(2), 173-205.

Rose, N., & Miller, P. (2008). *Governing the Present: Administering Economic, Social and Personal Life*: Cambridge: Polity Press.

Rose, N., O'Malley, P., & Valverde, M. (2006). Governmentality. *Annual Review of Law and Social Science, 2*(1), 83-104.

Rutherford, S. (2007). Green governmentality: insights and opportunities in the study of nature's rule. *Progress in Human Geography, 31*(3), 291-307.

Rutland, T., & Aylett, A. (2008). The work of policy: actor networks, governmentality, and local action on climate change in Portland, Oregon. *Environment and Planning D: Society and Space, 26*(4), 627-646.

Sanne, C. (2002). Willing consumers—or locked-in? Policies for a sustainable consumption. *Ecological Economics, 42*(1), 273-287.

Schatzki, T. R. (1996). *Social Practices: A Wittgensteinian Approach to Human Activity and the Social* Cambridge: Cambridge University Press.

SDC (2010) *The Future is Local* [online] Available at http://www.sd-commission.org.uk/publications.php?id=1093 Accesses 27 January 2013

SDC (2011) *About us* [online] Available at http://www.sd-commission.org.uk/ Accessed 27 January 2013

Seyfang, G. (2009). *New economics of sustainable consumption: seeds of change*. Basingstoke: Palgrave Macmillan.

Seyfang, G., & Haxeltine, A. (2012). Growing grassroots innovations: exploring the role of community-based initiatives in governing sustainable energy transitions. *Environment and Planning C: Government and Policy, 30*(3), 381-400.

Seyfang, G., & Paavola, J. (2008). Inequality and sustainable consumption: bridging the gaps. *Local Environment, 13*(8), 669-684.

Seyfang, G., & Smith, A. (2007). Grassroots innovations for sustainable development: Towards a new research and policy agenda. *Environmental Politics, 16*, 584-603.

Shove, E. (2003). Converging Conventions of Comfort, Cleanliness and Convenience. *Journal of Consumer Policy, 26*(4), 395-418.

Shove, E. (2010). Beyond the ABC: climate change policy and theories of social change. *Environment and Planning A, 42*(6), 1273-1285.

Shove, E. (2011). On the difference between chalk and cheese? A response to Whitmarsh et al's comments on "Beyond the ABC: climate change policy and theories of social change". *Environment and Planning A, 43*(2), 262-264.

Shove, E., & Pantzar, M. (2005). Consumers, Producers and Practices: Understanding the invention and reinvention of Nordic walking. *Journal of Consumer Culture, 5*(1), 43-64.

Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes*. London: SAGE Publications.

Shove, E., & Walker, G. (2007). CAUTION! Transitions ahead: politics, practice, and sustainable transition management. *ENVIRONMENT AND PLANNING A, 39*(4), 763-770.

Slocum, R. (2004). Consumer citizens and the Cities for Climate Protection campaign. *ENVIRONMENT AND PLANNING A, 36*(5), 763-782.

Smith, M. J. (2010). From Big Government to Big Society: Changing the State-Society Balance. *Parliamentary Affairs, 63*(4), 818-833.

Snow, D.A., Soule, S.A. & Kriesi, H. (2004). Mapping the terrain. In D.A. Snow, Soule, S.A. & Kriesi, H. (eds.), *The Blackwell Companion to Social Movements* (pp. 3-16) Oxford: Blackwell

Southerton, D., Warde, A., & Hand, M. (2004). The limited autonomy of the consumer: implications for sustainable consumption. In D. Southerton, H. Chappells, & B. Van Vliet, (Eds.), *Sustainable Consumption: the implications of changing infrastructures of provision* (pp. 32-48). Cheltenham: Edward Elgar.

Spaargaren, G. (2003). Sustainable Consumption: A Theoretical and Environmental Policy Perspective. *Society and Natural Resources, 16*(8), 687-701.

Spaargaren, G. (2006). The Ecological Modernization of Social Practices at the Consumption-Junction, in *Discussion paper for the ISA-RC-24 Conference on 'Sustainable Consumption and Society.' Madison, Wisconsin, June 2-3, 2006.*

Spaargaren, G. (2011). Theories of practices: Agency, technology, and culture: Exploring the relevance of practice theories for the governance of sustainable consumption practices in the new world-order. *Global Environmental Change, 21*(3), 813-822.

Spaargaren, G., & Van Vliet, B. (2000). Lifestyles, consumption and the environment: The ecological modernization of domestic consumption. *Environmental Politics, 9*(1), 50-76.

Staats, H., Harland, P. & Wilke, H.A.M. (2004). Effecting durable change, a team approach to improve environmental behaviour in the household. *Environment and Behaviour, 36*, 341–367.

Stake, R.E. (1995). *The Art of Case Study Research*. London: SAGE Publications.

Stocker, L. & Barnett, K. (1998). The significance and praxis of community-based sustainability projects: community gardens in Western Australia, *Local Environment, 3*(2), 179–189.

Strauss, A. (1987). *Qualitative analysis for social scientists*. Cambridge: Cambridge University Press.

Strauss, A., & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. London: SAGE Publications.

Strengers, Y. (2012). Beyond demand management: co-managing energy and water practices with Australian households. *Policy Studies, 32*(1), 35-58.

Stroh, M. (2000). Qualitative Interviewing. In D. Burton (Ed.), *Research Training for Social Scientists* (pp. 196-214). London: SAGE Publications.

Summerville, J. A., Adkins, B. A., & Kendall, G. P. (2008). Community participation, rights and responsibilities: the governmentality of sustainable development policies. *Environment and Planning C: Government and Policy, 26*(4), 696-711.

Suttles, G. (1972). *The Social Construction of Communities*. Chicago: University of Chicago Press.

Tarrow, S. (1998). *Power in movement: social movements, collective action and politics* 2nd edition. Cambridge: Cambridge University Press

Taylor, M. (2011). *Public Policy in the Community* (2nd ed.). Basingstoke: Palgrave Macmillan.

Thaler, R.H., & Sunstein, C.R. (2008). *Nudge: Improving Decisions About Health, Wealth, and Happiness*: Yale University Press.

Tönnies, F. (1957). *Gemeinschaft and Gesellschaft*, New York: Harper & Row.

Ungar, S. (1994). Apples and Oranges: Probing the attitude-behaviour relationship for the environment. *Canadian Review of Sociology and Anthropology*, *31*(3), 288-304.

Valentine, G. (2005). Tell me about...: using interviews as a research methodology. In R. Flowerdew & D. Marting (Eds.), *Methods in Human Geography: A guide for students doing a research project* (2 ed., pp. 110-127). Harlow: Pearson Education.

Van der Horst, D. (2008). Social enterprise and renewable energy: emerging initiatives and communities of practice. *Social Enterprise Journal, 4*(3), 171-185.

Walker, G. (2011). The role for 'community' in carbon governance. *Wiley Interdisciplinary Reviews: Climate Change, 2*(5), 777-782.

Walker, G., Cass, N., Burningham, K., & Barnett, J. (2010). Renewable energy and sociotechnical change: imagined subjectivities of 'the public' and their implications. *ENVIRONMENT AND PLANNING A, 42*(4), 931-947.

Walker, G., Hunter, S., Devine-Wright, P., Evans, B., & Fay, H. (2007). Harnessing Community Energies: Explaining and Evaluating Community-Based Localism in Renewable Energy Policy in the UK. *Global Environmental Politics, 7*(2), 64-82.

Warde, A. (2005). Consumption and Theories of Practice. *Journal of Consumer Culture, 5*(2), 131-153.

Webb, J. (2012). Climate Change and Society: The Chimera of Behaviour Change Technologies. *Sociology, 46*(1), 109-125.

Wenger, E. (1999). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.

Whitmarsh, L., O'Neill, S., & Lorenzoni, I. (2011a). Climate change or social change? Debate within, amongst, and beyond disciplines. *Environment and Planning A, 43*(2), 258-261.

Whitmarsh, L., O'Neill, S., & Lorenzoni, I. (Eds.). (2011b). *Engaging the Public with Climate Change: Behaviour Change and Communication*. Abingdon: Earthscan.

Williams, R. (1976). *Keywords: a vocabulary of culture and society*. London: Collins.

Willmott, P. (1986). *Social Networks, Informal Care and Public Policy.* London: PSI

Wilson, C., & Chatterton, T. (2011). Multiple models to inform climate change policy: a pragmatic response to the 'beyond the ABC' debate. *ENVIRONMENT AND PLANNING A, 43*(12), 2781-2787.

Yin, R. (2009). *Case Study Research: Design and Methods* (4 ed.). London: SAGE Publications.

Zerubavel, E. (2006). *The Elephant in the Room: Silence and Denial in Everyday Life*. Oxford: Oxford University Press.