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Monitoring and evaluation in UK low carbon community groups: benefits, barriers, and the politics of the local

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Abstract

In the UK there now exist hundreds of low carbon community groups (LCCGs) that aim to decrease collective resource consumption and/or generate renewable energy via diverse social and environmental interventions. These groups have in recent years become the subject of political attention and various funding schemes, underpinned by beliefs that LCCGs play key roles in fostering resilience to climate change and meeting national-level greenhouse gas emission reduction targets. While previous research into LCCGs has focussed on drivers barriers, and some outcomes of LCCG action, there is now growing policy and academic interest in groups' capacities for, and uses of, monitoring and evaluation (M&E) processes and tools. However, little is known about the experiences, opportunities and potential challenges for LCCGs using M&E. In response, this paper draws on a Knowledge Exchange project that explored M&E processes and tools with a sample of UK LCCGS. It outlines the benefits and drawbacks of groups' attempts to achieve change and to account for their outcomes and/or impacts, individually and as part of a wider movement. As such-while M&E could be one way for groups to 'scale up' their impact without losing their grounding in place and community—issues of capacity, resources and utility remain paramount.

Keywords: Low Carbon Community Groups; Monitoring and Evaluation

Word Count: 6, 643

Introduction

The contributions community level activities make to climate change adaptation and mitigation are argued as important to the 'profound changes in social and economic structures' (Arvesen et al., 2011, 7453) necessary to address burgeoning socioenvironmental challenges. For example, the UK's Department of Energy and Climate Change's Low Carbon Transition Plan (2009: 92) notes that 'we often achieve more acting together than as individuals', thus making one of the roles of government the fostering of 'an environment where the innovation and ideas of communities can flourish' (Department of Energy and Climate Change, 2009, 92). And indeed a flourishing of sorts has been taking place of late. In countries such the UK hundreds of low carbon community groups (LCCGs) are now helping to foster networks, relationships and capacities for future action, while securing tangible carbon emissions reduction through a range of interventions (e.g. Hoffman and High-Pippert, 2010; Mayne et al 2013; Middlemiss, 2011; Middlemiss and Parrish, 2010; Mulugetta et al., 2010; Parag et al 2013; Walker, 2011; Walker and Cass, 2007). While the majority of LCCG projects take place without external support, there have been some funding available, such as the Department of Energy and Climate Change's (DECC) Low Carbon Communities Challenge and the Big Lottery Fund's £50m Sustainable and Resilient Communities strategy.

However, detailed evidence of the actual impacts of community projects is currently highly limited: an issue recently highlighted as a concern in further policy formation and implementation (Databuild Research and Solutions Limited 2013). This dearth of evidence pertains not only to localised impacts, but also to influences 'midstream' and 'upstream' (Park, 2012; Taylor, 2012, Parag et al 2013; Janda and Parag 2013), where 'midstream' refers to other community groups and organisations like Local

Authorities: and 'upstream', the political and legislative context in which proenvironmental behaviour changes take place (Lovell, 2009). And the need for more rigorous accounts of impacts and outcomes becomes more pressing when one considers the hopes and claims that LCCGs can and do shift their practices to 'wider mainstream settings' (Seyfang, 2010, 7624). Indeed, this issue is now the focus of a growing literature that explores the possibilities and processes of 'scaling up' niche innovations (e.g. Mayne et al 2013; Seyfang and Smith 2007; Hargreaves 2013), wherein the geographically-bounded and small-scale of local groups are able to 'stretch and shape the space in which they can prosper' (Smith et al., 2010, 445), generating impacts that go beyond carbon reduction (e.g. Databuild 2013). Indeed, at the time of writing, DECC has just finished a public consultation process to help establish a Community Energy Strategy for the UK, thus bringing community energy into political consciousness. In this context, being able to assess and account for groups' outcomes and/or impacts, over time and across scales is imperative for groups themselves, as well as researchers and, not least, policy makers (e.g. NCVO 2013; Alliance for Useful Evidence 2013).

However, questions remain about how best to assess and account for the broad range of outcomes and impacts that LCCGs seek to achieve, in particular what role monitoring and evaluation (M&E) can and does play in helping LCCGs improve their relevance, effectiveness and impact. Here, M&E is understood as the regular tracking and assessment of internal and/or external processes and interventions, ideally integrated within the project planning cycle: with evaluation being the retrospective assessment of interventions, midway or at their end. Numerous LCCG M&E processes and tools are indeed currently available and in use, ranging form household level carbon calculators to post-hoc qualitative assessments. However, one issue is how to draw rigorous comparisons between these divergent tools and approaches, and thus accumulate data on collective impacts. And also, given that the vast majority of LCCGs run purely on volunteer time, adding another activity to already-pressured agendas and resources is potentially counter-productive, for some groups at least.

As such, the issue of LCCGs and M&E merits further interrogation. This is particularly pertinent given the dearth of research into the experiences, opportunities and challenges of LCCGs around M&E, in a context where they are being increasingly ascribed roles within climate change governance debates and political/policy statements. In response, this paper draws on qualitative data gathered as part of a Knowledge Exchange project that explored the role of M&E in the work of LCCGs in the UK. For this project, semi-structured interviews and 2, 1-day workshops were held with members of LCCGs from England and Wales, along with meetings with key individuals active in LCCG networks. Overall, the aims of the project were to examine current practices in, the potential utility of, and the barriers to, the use of M&E in groups' project and activities. And findings suggest that—while a great deal of potential and actual gains can be had by groups, particularly by bringing M&E into early-stage planning of projects-concerns about the relevance and burdensome nature of some M&E approaches were prevalent. As such, this paper argues that for M&E to be a plus for LCCGs, continued support, capacity building and relevant tools and metrics are key.

Low carbon community groups in the UK: policy, discourse and practice

As mentioned above, it has of late been increasingly argued that:

'Small, locally-owned initiatives replicated by groups across countries and nations can deliver substantial emissions reductions. At the same time, they

can drive the mass shift in attitude and behaviour that is needed to tackle climate change.' (King, 2010, no page)

While enthusiasm for such sentiments abound, the feasibility of this 'mass shift' remains an open question. One pathway has been financial and advisory support to LCCGs in 'the delivery of low carbon technologies and engagement activities' (Department of Energy and Climate Change, 2012, 2: see also Bulkeley and Fuller, 2012): although in the UK the delivery mechanisms have recently shifted from enduser grants to 'test bed' funding via competitive grant-bidding processes (Mayne et al 2013). Indeed, although the funding climate has been shifting and uncertain, positive evidence does indeed exist about the impacts of LCCGs groups in countries like the UK. Overall, it has been estimated that whilst LCCGs can achieve carbon emission reductions of 10-32% in one year (e.g. Houghton 2010), many groups achieve reductions of 10% in a year for households involved in their projects. Case studies of particular projects have illuminated the positive impacts beyond emission reductions. For example a woodfuel project in Cumbria, UK (Rogers et al., 2012) helped to change participants' attitudes and practices leading the authors to conclude that community-based renewable energy projects have the potential to 'dispel myths and stimulate uptake of new technology' (ibid., 245; see also Bomberg and McEwan 2012; Walker et al. 2007).

However, along with positive results there exist many notes of caution over loading notions of 'the community' with ideals of cohesiveness and inclusivity, or assumptions that LCCGs can be delivery agents of government or local authority carbon reduction programmes. Indeed, some research has outlined how communitylevel interventions can have (unintended) negative impacts such retrenching 'them' and 'us' dynamics within communities along socio-economic and ethnicity lines

(Clarke and Agyeman, 2011; Franklin et al., 2011). In addition, recent concerns have been raised about the ideological rationales underpinning political interest in LCCGS, as well as other forms of community mobilisation. For example, the current UK rightof-centre Coalition government has of late been reinvigorated the discourse and rhetoric of communities and local self-reliance (Aiken, 2012), undergirded by an array of interventions for 'encouraging social action and empowering communities' (http://communitylife.cabinetoffice.gov.uk/about.php), including climate change a discourse not matched by core funding for LCCGs or local authorities to carry out these roles (Green Alliance, 2012). Rather recent and significant 'austerity' cuts in government spending has stymied the provision of public services, causing many UK local authorities to scale back their climate change projects and programmes (Green Alliance, 2011). Therefore, the promotion of a certain flavour of 'localism' via a discourse of the 'Big Society', along with statutory changes such as the Localism Act 2011 (see New Economics Foundation, 2010); the removal of statutory targets on local authorities to address climate change and fuel poverty; and the uptake of 'libertarian paternalistic' or 'Nudge' frameworks by policy makers (House of Lords Science and Technology Select Committee, 2011; Institute for Government, 2009; Jones et al., 2010) has lead to comments that, in the UK at least:

'the government needs to be clearer that greater local freedom still entails shared responsibility on collective problems like climate change' (Green Alliance 2011, 8).

Despite the challenges of this context, many LCCGs are taking forward their own ideas of 'shared responsibility' through a diversity of projects and activities. And given the pressures on groups' time, energies and resources, tools and processes that can facilitate more effective project planning, shared learning and knowledge of

outcomes and impacts merits further consideration—in particular, M&E processes and tools.

Monitoring and evaluation: policy signal and local baromoters?

Debates about M&E sustainability indicators and processes are without doubt not new, and indeed have been on-going for decades (e.g. see Elgert and Krueger, 2012). Research has shown that when executed effectively, M&E can provide valuable group learning; improve project design and impact; ensure accountability to stakeholders; provide evidence to motivate supporters; influence policy makers; and support fundraising (Cox et al., 2010). One key area of debate around M&E has been the merits and limits of top-down/expert-lead, versus bottom up/citizen-lead approaches (e.g. Elgert and Krueger 2012). And as such, how to create the 'right indicators that can act as both policy signals, but also valuable local barometers' (Turcu, 2013, 18) remains a challenge. That is, how can LCCGs stay firmly rooted in the places and people that give rise to them whilst being able to enter into broader debates and interactions about their aims, projects and outcome. In short, how can they adopt 'standardised policy inputs' that do not 'decontextualise environmental knowledge' (Elgert and Krueger, 2012, 565)?

As mentioned above, some quantitative tools do exist that aim to overcome this tension e.g. community and household carbon calculators such as the UK Government's 'Act on CO₂ Calculator' and the National Energy Foundations 'Carbon Workout'¹, to name but a few. However, as they generally utilise divergent metrics and methodologies, results are often hard to compare. Within the literature on community-based initiatives, some qualitative indicators have been put forward as offering important measures of attitude, behaviour and material changes: measures

¹ See http://carboncalculator.direct.gov.uk/index.html; and http://www.nef.org.uk/actonCO2/carboncalculator.asp

which can capture some vital but sometimes nebulous processes and outcomes of community-level interventions. For example, Seyfang (2010) suggests that for 'grassroots innovations', evidence of localisation; the reduction of ecological footprint; community building; collective action; and new infrastructure(s) of provision are key indicators. With such broad headings however, the questions that automatically follow include how to define and measure concepts such as 'community building', particularly if seeking to apply metrics across multiple interventions at different sites? This is a significant challenge some within LCCG networks are recognising as a substantial endeavour, and thus will form part of the discussion in the remainder of this paper.

Knowledge exchange and project methods

As stated above, this paper draws on data collected during a 'knowledge exchange' (KE) project—an approach to knowledge generation and outreach gaining more credence amongst researchers and research institutions, and which:

'Refers to the exchange of information, ideas, expertise and people between researchers and research users such as policy-makers, businesses and members of the public.' (Living With Environmental Change, 2012, 1)

In this light the project built upon existing research within the authors' institution about LCCGs, which underscored how LCCGs often want to, but don't always know how to, partake in M&E (Hamilton 2013). Thus the goal of this project was to explore this finding further, to provide some LCCGs with the space to consider the roles that types of M&E does and/or could play in their group. As the ethos of KE is participatory and two-way (see North 2013), the aim was not to gather together existing M&E tools and templates to then disseminate within and between LCCGs. Rather, it followed Regeer et al.'s (2009) 'Mode 2' approach, where, complex and 'open' issues such as local responses to climate change necessitate M&E born of participatory approaches to evaluation framework development, with the aim of creating and deploying contextually relevant indicators.

To undertake the above, 10 semi-structured interviews were first carried out with members of LGGCs in the UK. Individuals were primarily recruited through the Evaluation Methods survey (Hamilton 2013) conducted as part of the EVALOC research project, which was publicised by the Transition Network and Low Carbon Communities Network through their internal announcement mechanisms. Further interviewees were recruited through these same networks, in all cases meaning the participants were volunteers and thus self-selected. The purpose of these interviews was to gauge experiences of groups and individuals in using, or trying to use, forms of M&E. Or if they had not included any M&E in group activities, what they felt the limitations and barriers were. Then 2, 1-day workshops were held in Oxford and Bristol respectively. Here 27 individuals from 25 organisations spent the day discussing the potentials and pitfalls of M&E; carrying out a trial M&E process; and trying out some available M&E tools-all of which were fed back and discussed amongst participants in both small and plenary configurations. Thus, the remainder of this paper draws on qualitative data from these interviews and workshops, using direct quotes where applicable, as interviews were recorded and transcribed and detailed notes were taken during both workshops.

Why do M&E?: opportunities and barriers for LCCGs

As one might expect, groups interviewed were carrying out a range of local activities including running regular clothing 'swap shops' (where unwanted but usable items are exchanged, promoting reuse within a community and diversion of goods from landfill); collecting and distributing local food at harvest time; putting on regular film

and discussion nights on pertinent issues; and collecting local litter. Several groups had undertaken more involved community energy projects including setting up a community-owned wind turbine and placing PV arrays on local buildings. While some of this work arguably cannot be claimed as 'novel bottom-up solutions', they are certainly forms of 'community innovations' as they aim to respond to the local situation as well as the interests and values of involved communities (Seyfang 2010: *ibid.*).

The community-led M&E already being undertaken by these groups can be placed in four categories, as follows:

- 'Light touch' includes monitoring participation at local group-led events; asking attendees for feedback about said events and consequent intentions to take further pro-environmental action; and collecting data on, for example, tonnage of local food collected and distributed, and litter gathered from a village clean-up day.
- 'In depth' M&E processes include developing and using carbon footprint tools alongside methods to assess behaviour change within households participating in sustainable living programmes. This M&E combines and integrates household resource-use data and self-reported activities, typically with a steady group of participants.
- 'Cross-community group' approaches are examples of M&E tools developed specifically for LCCGs to use, and to enable aggregation and comparison e.g. the recently developed Community Action Groups Oxfordshire 'Impact Model' to estimate collective community groups' effects on waste, energy, carbon and cost reduction (see http://www.cagoxfordshire.org.uk/impactmodel).

 'Baselining processes' are examples of groups building capacity and knowledge while creating a set of indicators against which to compare the progress of their projects over time e.g. Transition Town Totnes' REconomy project² and Oxfordshire Renewable Capacity study³.

In addition, several groups had been involved in evaluation processes undertaken by outside organisations as part of externally funded projects. Participants expressed mixed opinions about the processes and outcomes of this experience. That is, some M&E processes conducted by external actors added useful capacity for specific project level M&E, such as providing a comparative dataset to assess their impact on attitudes and behaviours. Other groups reported that while they had some access to collected data after the event, they felt they had little say in the modes and methods of M&E utilised by these external agents (see below for further discussion), which decreased its relevance to their own internal learning and in one case created a parallel M & E framework on top of the groups existing framework.

For those who had undertaken some form of M&E, they reported finding the process mostly useful and productive. One group that ran a members survey about internal dynamics and processes found it helped reflect upon current procedures and generated new ideas about how to run the group more effectively. Another participant commented that their calculation of resources saved in a year stimulated further motivation, which included feelings of pride at the work achieved. She commented that:

"Generally during the year we're all sort of feeling 'oh, we're not doing enough'. And then you write it all down in your annual report and you've

 ² http://www.reconomy.org/totnes-economic-blueprint-first-reports-now-available/
³ http://www.lowcarbonhub.org/wp-content/uploads/2012/06/Oxfordshire-Capacity-

Study.pdf

actually got some hard data in there...and I think that's hopefully motivating, it certainly cheers me up at the end of the year."

Overall participants did not need to be convinced about the merits of M&E for LCCGs. They were more than aware of its' internal (group) and external benefits, such as providing evidence of actual impacts. This was seen as potentially motivating future action and enabling groups to feel legitimised—particularly when talking with local government and/or funders—in terms of the merit of their work and the potential for building future partnerships. As one interviewee stated, when talking about their groups' neighbourhood behaviour change project:

"The reason why there's so much interest in rolling it out is because it's so well evidenced and so well demonstrated. That evidence that we've got, the amount of money saved, all those measurements...the way you are able to point to those things and put them all in one place and go 'there you go' and people go 'oh yes OK that makes perfect sense."

For others, while not directly talking about M&E practices, there was a sense that without some knowledge of impacts, their group members start to lose heart and the sustainability of the group begins to look less feasible. As one participant commented:

"It can be quite soul destroying when you put a lot of effort into something and you disappointed with turnout. But all it takes is three people for the message to hit home and then go back to their family and friends and talk about it and change something about what they do, whether it's how they shop or where they holiday or whatever then you've done your job in a way, you've made that difference. But you'll never know that that's occurred."

While in theory supporting such statements, others were less sanguine about the tenability of M&E. Comments were made that they were satisfied evaluating their

outputs via proxies such as reports about group events in the local media. Other had tried to implement particular M&E regimes within groups, only to find it tail off and/or fail to be utilised by other group members. A key sentiment in concerns about M&E was the desire to not get "too hung up" or "bogged down" in M&E. As one participant put it:

"I think the challenge if we're going to do more, it's how do we do it in a way that doesn't create bureaucracy and also works within the spirit of everything we're doing. Transition's meant to be fun and practical, so how do we get at the data without it being a huge form-filling, wordy."

Indeed, the desire to maintain the 'spirit of everything we're doing' was one of the reasons why many groups had not felt drawn to pre-established M&E processes and tools. That is, LCCG members reported enjoying the diversity and self-generated nature of the projects and activities they undertake, with the actual activities being their main focus of energy and drive – not accounting for them after the fact. Therefore participants were keen to create and/or locate M&E processes that did not stifle this freedom and creativity, whilst also allowing groups to prosper and be sustained.

One possible way forward suggested by participants was for 'peer M&E' where adjacent groups examine each others' projects, as a learning process for both the evaluator and evaluated, with the benefit of building regional social networks along the way. Others suggested that being provided with overviews of M&E resources and case studies of what other groups are doing in this area would be useful. This could include being given 'simple guidelines' on how to design an effective M&E process, or having 'off the peg' data collection templates for specific events, which would also allow groups to learn from each other and to aggregate data to assess impacts and barriers to community energy action at a regional or national scale. However, there was a clear recognition that it is first necessary to facilitate group thinking about what projects and interventions they want to M&E; why; and to what ends: and indeed, how making these 'off the peg' resources fit local needs is feasible.

Linked to this, a further issue raised as a barrier to M&E was a perceived dearth of skills, capacity and resources, in particular to track any behaviour change of individuals taking part in domestic consumption reduction programmes, as the quote on the previous page alluded to i.e. "But you'll never know that that's occurred". Thus—despite claims that local action can 'simplify accounting and implementation procedures of carbon reduction activities' (Mulugetta et al. 2010, 7542)—many participants commented that they found monitoring household behaviour change "has been near impossible", with a few pondering the real possibility that their endeavours are being partially cancelled out by rebound effects (see also Sorrell, 2009). For example, one interviewee wondered:

"if people shift to renewable energy and have an income from that, do they just keep the house warmer or do they just spend the surplus money to go on a holiday?"

Thus, participants were more than aware of the limits of their own impacts, along with the inherent challenges of counting up and accounting for the effects of their activities. Yet, a definite interest in, and recognition of the importance of, M&E still exists amongst LCCGs.

Indeed, during the workshops, one exercise took small groups of participants through the initial stages of a step-by-step design of an M&E framework for a project of their choice. Following an exercise to clarify their project aims, objectives and assumptions about how change happens, several participants noted that embedding M&E at the

start of their project planning might help them to consider the value and potential impact of proposed activities from the start. This is not a new assertion in relation to M&E per se, but in the context of this project enabled a reflection from some participants that the term 'M&E' could put some groups off taking part or considering utilising tools. By contrast, framing our project and indeed the field, more in terms of effective project development might see more groups eager or at least willing to participate.

The (environmental) politics of LCCG M&E

This reported sense from participants that they wanted to know what their groups were achieving is as much political as it is about understanding how to achieve change at individual and local level. As one participant commented, when talking about the attitudes of both local and national government:

"They need to know, they need to understand how much passion and enthusiasm is actually out there, wanting to take the lead. We're in the face of overwhelming evidence, whether you look at a failing economy, energy supplies, climate change...and then you have all of these people who want to put their own time into doing the right things, which the government also state it wants to do as well. I think seeing that groundswell of movement more visibly and what it's achieving will help influence government. You are always up against the big lobbyists, the status quo but it's got to help. So some way of aggregating how much is going on and how successful it is and what it needs to make itself even more successful would be compelling, wouldn't it!"

As such, it is necessary here to briefly revisit the socio-political context discussed above. As already alluded to, some of the participating groups had bid for, and received funding from national government or other sources, such as not-for-profit

national organisations. This had allowed them to undertake projects that would have otherwise been difficult, if not impossible, as this funding provided core investment capital, for example, for community energy projects: and/or temporary payment of volunteer time for initial project management to get complex, and often novel, projects initiated and delivered. As part of these funding agreements some groups had been involved in a variety of evaluations, mostly undertaken by external agents chosen and appointed by funders. Comments about these experiences suggest they had not always been that productive for groups, and had thus put some off further funding involvement and use of/engagement with M&E. For example, one group that had received a grant from a national fund stated how the post-funding conference they attended provided little space to share experiences between groups. In addition, the messages being put forward by sponsoring government departments after the event differed notably from what was said by groups during the event. As such, these individuals came to question why such events were being held i.e. who really benefits?: and indeed, the wisdom of getting involved in 'top down' funders. Another participant mentioned interactions with individuals from DECC, where gaps in DECC data and knowledge about LLCGs work and impacts was openly acknowledged. Thus, this interviewee observed, that in terms of policy makers, "it sounds to me like they don't really know much about what they need to know actually". This includes the impacts of group activities, resulting in groups not feeling a great deal of faith in the basis of current policy-making decisions: decisions which in turn impact the survival of groups and set the policy landscape for groups, investors, citizens and movements for years to come. As such, the policy moves that attempt to leverage responsibility for addressing aspects of climate change onto communities are (for

some) proving counter-productive, potentially pushing them further away from engagement in formal funding mechanisms.

Despite these experiences—and indeed, for some because of them—there was an appetite for M&E from participants: but M&E processes and tools that are grounded in interests and needs of specific groups, whilst also speaking to data needs of other communities and stakeholders. Indeed, some saw M&E as a way to strengthen and/or represent LCCGs as a 'movement'. This is an issue also important to intermediary organisations like Transition Network, which play a vital role in articulating groups into a larger collective but are struggling to take the measure of such a movement given the dearth of feedback from groups. And it is also a point pertinent to the literature around the role of local innovations in larger-scale socio-technical transitions, wherein the possibilities of scaling up fundamentally social interventions have been under-explored in comparison to more technologically focussed projects (e.g. see Smith 2007; 2010). That is, LCCGs struggle to conceptualise how they could, and indeed whether they should, scale up their work: in essence, alter their current scale and scope of current activities. A rigorous but grounded M&E framework could thus serve as a proxy for such scaling up activities, allowing groups to remain local whilst being able to enter into, and contribute to, larger debates. This includes finding credible ways of measuring wider social outcomes and impacts of interest to LCCGs such as 'community building', as well as generating evidence about the impact and limits of LCCG action and suggesting roles for other actors such as local and national government, energy companies and the home renovation industry.

Thus, although the recent spate of reports and projects promoting and supporting community-level M&E are welcomed by groups, they raise questions about who

designs and conducts M&E; the relevance of M&E to the needs of individual LCCGs and the wider movement: as well as potential duplication of M&E initiatives between funders and intermediary groups. That is, evaluations are now being increasingly embedded into community funding schemes: funding deemed vital by groups to enable them to undertake long-term and effective activities. Yet—while it is the social capital/collective agency and individual behaviour change impacts that researchers emphasis as key LCCGs outcomes (Letcher et al., 2007)—these often prove the most difficult to monitor and evaluate, due to the often qualitative nature of the data required, the time scales involved that stretch beyond the average project life, and the nature of the M&E tools required. As such, an increasing emphasis on M&E that is not matched by further financial, technical and evaluation support for groups could place yet more pressure on LCCGs limited resources at a time when they are receiving increasing political and policy attention, in the UK at least.

Concluding comments

This paper has highlighted the role that M&E can and does play in the activities of LCCGs in the UK, based on qualitative data drawn from a pilot Knowledge Exchange project. This exploratory work is argued here to be worthwhile, as an increasing political emphasis on the role of community groups in delivering national policy goals could potentially see M&E take a more central role to the activities of LCCGs, particularly those receiving external funding. Yet, to date, little of the work that has explored the motives and actions of LCCGs has examined the role that M&E can and does play for said groups, in addition to potential pathways forward.

This paper has adopted a critical stance toward the political contexts that LCCGs are currently operating within, echoing the argument already made in the existing literature, that the localisation of responsibility for action of climate change and energy provision/security needs to be undergirded by rigorous evidence of impacts and limitations of community-lead activities. However questions of how to, and who does, generate and utilise this data remains open. For the groups that participated in this KE project, as well as networks such as Transition Network and Low Carbon Community Network, there was an interest in growing the 'movement' through means such as M&E, aiming to contribute to broader debates by collecting collating robust information on impacts and effectiveness. However, any sense that the implementation of M&E for LCCGs is without challenge has to be met with caution, both empirically and conceptually. For example, while there was an impetus from groups in being able to potentially create collective account for their impacts, there was also an acknowledgement that such accounts could be used as evidence to remain on a business as usual pathway, where core funding and institutional support is lacking. In addition, while numerous tools, reports and online projects now provide the means for LCCGs to undertake their own M&E on paper, the reality is quite different. While many groups have the capabilities to undertake M&E, issues of time, resources, capacities and indeed perceived relevancy remain, and may very well continue to do in the current UK policy climate.

And as ever, there is more research to be undertaken in this field—a task this paper's authors are continuing, with the phase of the project now moving into a more substantive KE exercise. This next phase will explore further questions such as how to create indicators for LCCGs that are both relevant and potentially 'travel' across projects and places. And also, outside the relatively environmentally engaged populations of Oxford and Bristol, questions remain as to how LCCGs can undertake M&E that includes a component of public involvement, when they struggle to achieve any notable level of public engagement with their pubic events and activities. That is,

how do we construct a toolkit of LCCGs M&E that reflects the socio-economic reality of LCCGs in the UK today, both for members of the relevant communities and volunteers who often are giving what little spare time they have between work and family commitments to create and implement challenging projects? Such questions require further consideration if LCCGs are to see the advent of M&E as a blessing rather than yet another administrative burden and barrier to achieving effective outcomes in their local communities and beyond.

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References

Aiken, G., 2012. Community transitions of low carbon futures in the transition towns network. *Geography Compass*, 6, 89-99.

Arvesen, A., Bright, R. M., and Hertwich E. G., 2011. Considering only first-order effects? How simplification lead to unrealistic technology optimism in climate change mitigation. *Energy Policy*, 39(11),7448-7454.

Bomberg, E., and McEwan, N., 2012. Mobilizing community energy. *Energy Policy*, 51, 435-444.

Bulkeley, H., and Fuller, S, 2012. Low carbon communities and social justice [online]. *Joseph Rowntree Foundation*. Available from http://www.jrf.org.uk/sites/files/jrf/low-carbon-communities-summary.pdf. [Accessed 14 May 2013]. Clarke, L., and Agyeman, J., 2011. Is there more to environmental participation than meets the eye? Understanding agency, empowerment and disempowerment among black and minority ethnic communities. *Area*, 43, 88-95.

Connors, P., and McDonald, P., 2010. Transitioning communities: community, participation and the Transition Town movement. *Community Development Journal*, 46, 558-572.

Cox, J., Giorgi, S., Drayson, R., and King G., 2010. *Big Green Challenge Final Evaluation Report* (Nesta, Brook Lyndhurst, London)

Department of Energy and Climate Change, 2009. *Low Carbon Transition Plan* Department of Energy and Climate Change, London.

Databuild Research and Solutions LTD, 2013. Community Energy in the UK: A review of the evidence [online]. Interim report for the Community Energy Strategy . Available from:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/205218 /Community_Energy_in_the_UK_review_of_the_evidence.pdf. [Accessed 3 September 2013].

Department of Energy and Climate Change, 2012. Low Carbon Communities Challenge: Evaluation Report [online]. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48458/ 45788-low-carbon-communities-challenge-evaluation-report.pdf. [Accessed 5 May 2013].

Elgert, L., and Krueger, R., 2012. Modernising sustainable development? Standardisation, evidence and experts in local indicators. *Local Environment*, 17, 561-571.

Flyvbjerg, B., 2001. *Making Social Science Matter: Why social inquiry fails and how it can succeed again*. Cambridge: Cambridge University Press.

Franklin, A., Newton, J., and McEntee, J. C., 2011. Moving beyond the alternative: sustainable communities, rural resilience and the mainstreaming of local food. *Local Environment*, 16, 771-788.

Green Alliance, 2011. Is localism delivering for climate change? Emerging responses from local authorities, local enterprise partnerships and neighbourhood plans [online].

Availablefrom:http://www.green-alliance.org.uk/uploadedFiles/Publications/reports/Is%20localism%20delivering%20for%20climate%20change%20-%20FINAL.pdf. [Accessed 12 April 2013].

Green Alliance, 2012. Unlocking local leadership on climate change: perspectives from coalition MPs [online]. Available from: http://www.green-alliance.org.uk/uploadedFiles/Publications/reports/Unlocking%20local%20leadership %20on%20climate%20change%20-%20web.pdf. [Accessed 10 August 2013].

Hamilton, J., 2013, Community Monitoring and Evaluation methods survey: Report and Analysis. Working paper for EVALOC research project [online]. Available from: http://media.wix.com/ugd//caf2de_fd61a89150c88692722b9b0ea329ec98.pdf.

[Accessed 5 September 2013].

Hargreaves, T., Hielscher, S., Seyfang, G., and Smith, A., 2013. Grassrootsinnovations in community energy: The role of intermediaries in niche development.GlobalEnviromentalChange[online]http://dx.doi.org/10.1016/j.gloenvcha.2013.02.008. [Accessed 5 June 2013].

Hoffman, S.M., ad High-Pippert, A., 2010 From private lives to collective action: Recruitment and participation incentives for a community energy program. *Energy Policy*, 38, 7567–7574.

House of Lords Science and Technology Select Committee, 2011. *Behaviour Change*. HOUSE OF LORDS Science and Technology Select Committee 2nd Report of Session 2010–12, London.

Institute for Government, 2009. Mindscape: Influencing Behaviour Through Public Policy. London: Cabinet Office.

Janda, K.B. and Parag, Y., 2013. Building expertise: a middle-out approach for reducing energy use. Building Research & Information, 41 (1), 39-50.

Jones, R., Pykett, J., and Whitehead, M., 2010 Big Society's Little Nudges. *Political Insight*, December 2010, 85-87.

King, D., 2010. Time to think small on climate change [online]. Available at: http://news.bbc.co.uk/1/hi/sci/tech/8505854.stm. [Accessed Tuesday 9 Februrary 2011].

Letcher, M., Roberts, S., and Redgrove, Z., 2007 Mobilising individual behavioural change through community initiatives: Lessons for tackling climate change [online]. *Report by the Centre for Sustainable Energy (CSE) and and Community Development Xchange (CDX)*. Available at: http://www.cse.org.uk/pdf/pub1073.pdf. [Accessed 10 August 2013].

Living With Environmental Change, 2012. LWEC Knowledge Exchange Guidelines[online].Availableat:

http://www.lwec.org.uk/sites/default/files/LWEC%20KE%20Guidelines%202012_2.p

df. [Accessed 16th April 2013].

Lovell, H., 2009. The role of individuals in policy change: the case of UK low-energy housing. *Environment and Planning C*, 27, 491-511.

Middlemiss, L., 2011. The effects of community-based action for sustainability on participants' lifestyles. *Local Environment, 16,* 265-280.

Middlemiss, L., and Parrish, B.D., 2010. Building capacity for low-carbon communities: The role of grassroots initiatives. *Energy Policy*, 38, 7559-7566.

Mulugetta, Y., Jackson, T., and van der Horst, D., 2010. Carbon reduction at community scale *Energy Policy*, 38, 7541-7545.

New Economics Foundation, 2010. Cutting it: The 'Big Society' and the new austerity [online] *New Economics Foundation*. Available at: http://www.neweconomics.org/publications/cutting-it. [Accessed 10 September 2013].

Newell, P., and Mulvaney, D., 2013. The political economy of a 'just transition'. *The Geographical Journal*, 179(2), 132-140.

North, P., 2013. Knowledge exchange, 'impact' and engagement: exploring lowcarbon urban transitions. *The Geographical Journal*, 179(3), 211-220.

North, P., and Longhurst, N., 2013. Grassroots Localisation? The scalar potential of and the limits of the 'Transition' approach to climate change and resource constraint. *Urban Studies*, 50, 1423-1438.

Park, J.J., 2012. Fostering community energy and equal opportunities between communities. *Local Environment*, *17*, 387-408.

Regeer, B.J., Hoes, A.C., Saane, M.A., Caron-Flinterman, F.F., and Bunders, J.F.G, 2009. Six Guiding Principles for Evaluating Mode-2 Strategies for Sustainable Development. *American Journal of Evaluation*, 30, 515-537.

Rogers, J.C., Simmons, E.A., Convery, I., and Weatherall, A., 2012. Social impacts of community renewable energy projects: findgins from a woodfuel case study. *Energy Policy*, 42, 239-247.

Seyfang, G. 2010. Community action for sustainable housing: Building a low-carbon future. *Energy Policy*, *38*, 7624-7633.

Seyfang, G., and Smith, A., 2007. Grassroots innovations for sustainable development: Towards a new research and policy agenda. *Environmental Politics*, 16, 584-603.

Smith, A., Voss, J.P., Grin, J., 2010. Innovation studies and sustainability transitions: the allure of the multi-level perspective and its challenges. *Research Policy*, 39, 435-448.

Sorrell, S., 2009. Jevons' Paradox revisted: The evidence for backfire from improved energy efficiency. *Energy Policy*, 37, 1456-1469.

Taylor, P.J., 2012. Transition towns and world cities: towards green networks of cities. *Local Environment*, 17, 495-508.

Turcu, C., 2013. Re-thinking sustainability indicators: local perspectives of urban sustainability. *Journal of Environmental Planning and Management*, 56(5), 695-719.

Walker, G., 2011. The role for 'community' in carbon governance. *WIREs Climate Change*, 2, 777-782.

Walker, G., and Cass, N., 2007. Carbon reduction, 'the public' and renewable energy: engaging with socio-technical configurations. *Area*, 39, 458-469.