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Third sector organisations' role in pro-environmental behaviour change – a review of the literature and evidence

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Abstract

A range of actors, including government, third sector organisations (TSOs) and academics, have claimed recently that third sector organisations (TSOs) can play an important role in supporting people to adopt pro-environmental behaviours. These claims often refer to TSOs' potential to innovate, their proximity to citizens and their trustworthiness, as well as the role of collective action and small-group interventions. This paper reviews these different claims as well as the evidence that has been offered to date on the role of TSOs in pro-environmental behaviour change. We find that there is indeed some evidence that participation in environmental third sector initiatives can facilitate certain changes in people's day to day lives, particularly when it comes to 'low hanging fruits' such as increasing recycling or switching off appliances. However, the review also identifies a range of challenges that TSOs experience in their work, including engaging the broader public around climate change or other environmental issues, scaling up practice change to a wider audience and a lack of resources to sustain successful initiatives. Finally, the paper argues that there is a need for further discussion on a range of issues related to empirical research in this area, including methodological challenges of examining behaviour change and the more differentiated assessments that take organisational form, nature of intervention and type of targeted behaviour into account.

Keywords

Acknowledgements

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Introduction

In the context of challenges posed by climate change and other environmental problems, attention has turned to the role of third sector organisations (TSOs) in promoting behaviour change. Both government and third sector representatives have recently maintained that TSOs can play a crucial role in encouraging the public to adopt more environmentally friendly behaviours (e.g. DEFRA 2008c, Hale 2010, HM Government 2010, Cabinet Office 2011). This coincides an emerging academic interest in the question of whether, and if so how, TSOs can promote pro-environmental behaviour change (e.g. Georg 1999, Seyfang and Smith 2007, Hargreaves et al. 2008, Middlemiss 2009, Middlemiss and Parrish 2010, Büchs et al. 2011, Hargreaves 2011). However, evidence about the extent to which TSOs are able to encourage pro-environmental behaviour change is limited to date (Middlemiss 2008, Steward et al. 2009, Middlemiss and Parrish 2010) and the mechanisms of influence are not yet very well understood. This paper provides an overview and assessment of the claims that have been made about TSOs' role in behaviour change, paying particular attention to the limitations of TSO influence on behaviours to which the literature points. The paper is based on a review of the academic and 'grey' literature (e.g. government and third sector documents and evaluations) on both the theory and evidence of third sector organisations' role within pro-environmental behaviour change. The review also raises issues around identifying and measuring behaviour change in empirical research.

The government's increasing interest in the third sector's role in behaviour change needs to be understood in the context of broader transformations of political discourses regarding state-citizen relationships. This transformation gained momentum through New Labours' promotion of a 'third way' (Giddens 1999, Powell 2000, Fyfe 2005) and, more recently, through the new coalition government's Big Society agenda (Kisby 2010, Smith 2010, Pattie and Johnston 2011). Both approaches advocate (albeit with different emphasis) that individuals and civil society organisations should take on greater responsibility for a range of issues, including tackling environmental degradation and climate change (Hinchliffe 1996, Hobson 2004, Lucas et al. 2008, Askew et al. 2009, Fudge and Peters 2011). A greater emphasis on 'voluntary' behaviour change initiatives can therefore be regarded as linked to a more general shift of responsibility from the state to citizens and civil society and a desire to reduce direct legislation and intervention on the part of the state.

This transformation is also reflected in a range of government research programmes and initiatives focussing on behaviour change, for example on issues such as smoking, teenage pregnancy, alcohol consumption, diet and weight and physical activity (Cabinet Office 2010), education, training and labour market participation (Cabinet Office 2008) as well as pro-environmental behaviours. Here, for example, the Department for Environment, Food and Rural Affairs (DEFRA) has played a leading role in the development of a behaviour change framework since the early 2000s (DEFRA 2005, DEFRA 2008a, DEFRA 2008b, DEFRA 2011), complemented by work on behaviour and cultural change by the Cabinet Office (2008, 2011). The House of Lords Science and Technology Select Committee also conducted a review of the government's behaviour change policies, concluding that non-regulatory or 'nudge' approaches (Thaler and Sunstein 2008) may be less effective on their own and that a mix of measures will be required to be effective (House of Lords 2011). Several government departments

have also invested in initiatives that promote TSO action on pro-environmental behaviours and carbon reduction (e.g. DEFRA's Environmental Action Fund), developing low carbon communities (DECC's (Department of Energy and Climate Change) Low Carbon Community Challenge and Local Energy Assessment Fund), and generally strengthening the third sector's role in delivering climate change related policies (DEFRA 2008c, HM Government 2010).

But what are the assumptions behind claims that TSOs can play an important role in pro-environmental behaviour change? What are the strategies that TSOs choose to influence participants' or beneficiaries' behaviours? Is there evidence on the effectiveness and/or potential limitations of TSO initiatives? The following sections will review these questions.

Claims regarding TSOs role in behaviour change

Claims that TSOs can successfully influence people's behaviours are based on a range of assumptions about the essential characteristics of third sector organisations (often in comparison to the government or business). These assumptions centre on five themes that we have identified in current literature and that this section will explore: TSOs' potential for innovation, trust, proximity to citizens, collective action and the role of group settings.

Whilst **'innovation'** has often been associated with the private sector (Elzen et al. 2004), some authors have also emphasised the third sector's potential for innovation, whether in terms of service delivery, advocacy or other activities. Since many TSOs are operating outside of the social and economic 'mainstream', they are in a position to invent and establish alternative 'niche' practices and infrastructures which can then become the *source* of behaviour change (Seyfang and Smith 2007).[1] The crucial question raised by the 'grassroots innovations' literature (which we discuss below) is the extent to which such niche innovations can be diffused more broadly into mainstream society.

Several publications claim that citizens are likely to **trust** TSOs more than government or (big) business (CAT 2010, HM Government 2010, Hand 2011, House of Lords 2011). Whilst the reasons for this are rarely made explicit, TSOs are often believed to be more trusted because their activities and communications are not perceived to be driven by power or profit motives. Citizens might therefore receive information and advice provided by TSOs more openly and be more willing to pass such knowledge on within their social networks. The role of trust in behaviour change has to date been highlighted mainly in the 'grey' literature (e.g. government and third sector reports) (CSE/CDX 2007, CAT 2010, HM Government 2010), with little discussion or analysis in academic literature on TSOs and behaviour change.[2]

A third explanation of the importance of TSOs for behaviour change rests on their assumed **proximity** to citizens as compared to governments and businesses: TSOs can reach 'parts that others can't reach' (Steward et al. 2009, HM Government 2010). Through local action, TSOs are in direct

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[1] Mulgan (2007: 27) compares the role of different sectors in driving 'social innovations'. He includes the third sector in this discussion and states that third sector innovations often originate as a response to an individual or community's specific concern or problem (which makes them highly targeted and therefore potentially effective). However, Mulgan cautions that third sector innovations are often very precarious as they often start without the necessary funding and partnerships required to spread the innovation.

[2] One exception is Middlemiss' (2009: 34) discussion of the role that trust among participants of community-based initiatives plays for TSOs' role in pro-environmental behaviour change.

contact with people in their localities and thus know more about the specific local circumstances, capacities and needs (Steward et al. 2009). Not only might this be the basis for developing and sustaining trust (see above), but it implies that TSOs are in a better position to develop effective behaviour change (and other) interventions tailored to local, community and individual requirements. Some authors have also emphasised that TSO projects can develop effective solutions by directly involving local actors through bottom-up, democratic processes (e.g. Kenis and Mathijs 2009).

A fourth assumption relates to the perceived significance of the **collective** nature of TSO activities: behaviour change is seen to occur through engaging citizens in collective action and encouraging them to share their different skills and resources (Haxeltine and Seyfang 2009, HM Government 2010). Third sector organisations' collective orientation can be contrasted with government or business campaigns that primarily address *individuals'* interests or do not necessarily encourage individuals to collaborate in bringing about change.

Finally, and closely related to the previous point, it is often assumed that the **group**-based character of many environmental TSO projects on the ground is particularly conducive to the establishment of new social norms and related behaviours (Church 2005, DEFRA 2005, SCR 2006, SDC/NCC 2006, CSE/CDX 2007, Nye and Burgess 2008, Prendergast et al. 2008, Warburton 2008, Howell 2009, Parag and Strickland 2009, Steward et al. 2009, HM Government 2010, Houghton 2010, Nye and Hargreaves 2010). Group-based environmental projects can include local, community-based initiatives as well as projects run by national organisations such as Friends of the Earth or the National Trust. The literature focuses mainly on small groups that meet regularly face to face, for example Global Action Plan projects, Transition Towns and similar initiatives. Several reasons are suggested for the potential effectiveness of small group settings, such as:

- the possibility that people are more likely to accept new social norms and behaviours if others around them do and say so ('I will if you will'); this is based on the idea that group settings can support the establishment of new social norms as new expectations, rules and practices are generated, maintained and sanctioned in close social interaction (Georg 1999, SDC/NCC 2006, Haq et al. 2008, Hargreaves et al. 2008, Parag and Strickland 2009); it is also assumed that peer pressure emerges within group settings, encouraging project participants to adopt and stick to new behaviours (DEFRA 2007, Warburton 2008, Nye and Hargreaves 2010). It is important to note here that the 'group' character of TSOs can differ considerably, depending on the activities they engage in (e.g. discussion, practical activities or campaigning), how often they meet and how they meet (e.g. face to face, online, etc.). The claims made in the literature largely refer to groups that meet regularly face to face and more research would be required to establish how the type of group and interaction influence the ways in which norms are established or maintained. For example, does the 'group-hypothesis' also hold for online communities?

- the role that open deliberation in smaller and recurring group settings plays in enabling reflection on one's values, attitudes and behaviours; here, reflection is seen as an important part of the process involved in behaviour change – and something that is often more easily set in motion through engagement with others rather than on one's own (Georg 1999: 461, Hargreaves et al. 2008).

Types of interventions

The academic and grey literatures discuss several types of TSO interventions aiming to influence people's behaviours. These interventions can be broadly categorised as awareness raising, small group approaches, practical projects and provision-focussed interventions. Whilst different types of organisations may tend to support different types of intervention, they can also overlap within an organisation's activities and projects. Each of these forms of intervention can facilitate change to different aspects of social practices. By social practices we mean here the recurring 'sayings and doings' (Schatzki 1996) that people engage in on a daily basis and that are, simultaneously, embedded within and reproduce 'social structures' (Giddens 1984) and material infrastructures (Reckwitz 2002, Shove 2003). The theoretical literature highlights a range of different 'contexts' within which social practices are embedded, including: the understandings that people associate with specific practices, themselves and the 'world'; the motivations underlying practices; the skills and know-how that are required to engage in specific practices; and wider social norms and discourses (Reckwitz 2002, Büchs et al. 2011). Inspired by actor-network theory, the more recent social practices literature has also emphasised the role of 'things' and material infrastructures in establishing and stabilising social practices (e.g. Shove 2003, Pantzar and Shove 2010). For example, with the invention of the modern shower and its mass production and consumption, new routines of daily showering have developed which replaced previous practices such as (less regular) bathing (Shove 2003). The social practices concept is therefore conceptually broader than the behaviour perspective which tends to conceptualise behaviour, attitudes, etc. in more individualistic terms. While many behaviour change theories regard behaviours and behaviour change as an outcome of a variety of factors, including social norms and infrastructures (a good example is the 'needs, opportunities, abilities' model by Gatersleben and Vlek (1998)), they regard the latter as factors external to the individual and their behaviour. In contrast, the practices approach regards practices on the one hand and motivations, social norms and even infrastructures on the other as co-constitutive. Whilst we refer to 'behaviour change' in this paper for reasons of convenience, our analysis of the literature, especially the categorisation of the types of TSO interventions discussed in this section, is inspired and informed by insights from the practices literature (Büchs et al. 2011).

Above, we distinguished four different types of intervention undertaken by TSOs. While these are useful *analytical* distinctions between interventions, many organisations combine them in creative ways to address different aspects of practices.

A large part of the literature on the role of TSOs covers projects and organisations which regard awareness raising as an important part of their activity to encourage pro-environmental behaviours – a good overview is provided in DEFRA's Environmental Action Fund evaluations (DEFRA 2006, DEFRA 2007, DEFRA 2009). However, the literature also points to the well-known attitude-behaviour gap: while provision of information may change attitudes, this may not be sufficient to encourage sustained behaviour change (e.g. Kollmuss and Agyeman 2002, Lucas et al. 2008, Haxeltine and Seyfang 2009, Huddart et al. 2009, Fudge and Peters 2011). The Year 1 and Year 2 Environmental Action Fund evaluation reports criticised the many funded projects that had mainly engaged in awareness-raising activities but not moved on to actually change participants' behaviours (DEFRA 2006, DEFRA 2007).

The bulk of the existing literature on TSOs and behaviour change focuses on projects which involve small-group settings for regular meetings, open discussion and reflection. We can distinguish different activities, for example: collective measurement of energy use or emissions, water use, waste or travel behaviours over time; group-based discussion of actions to reduce environmental impacts; and/or public pledges about planned behaviour changes or emissions reductions. Examples of small-group based projects discussed in the literature include Global Action Plan, Carbon Rationing Action Groups, Carbon Conversations, Carbon Watchers, carbon pledgers, etc. (Georg 1999, Hobson 2003, Nye and Burgess 2008, Howell 2009, Parag and Strickland 2009, Steward et al. 2009, Nye and Hargreaves 2010, Reynolds 2010, Hargreaves 2011, McLean 2011). For example, Global Action Plan runs local EcoTeams – small groups of people either from existing community groups, workplaces or neighbourhood/friendship networks. EcoTeams meet regularly over a period of time that they specify themselves to measure their current impacts on the environment, discuss how their impact could be reduced, define actions to be taken and then review the outcomes of the programme. Sessions typically focus on issues such as waste, energy, transport and water use. Carbon Conversations is a similar approach in which trained facilitators recruit 6-8 participants for a 6-session workshop that aims to help people reduce their individual carbon footprints. The content of each session is defined by a handbook and includes sessions on energy in the home, travel and food. Carbon Conversations also seeks to offer a 'supportive group experience'[3] to explore the difficulties and emotional processes that participants experience in changing their habits and lifestyles. Carbon Rationing Action Groups are also small local groups who set themselves personal carbon reduction targets, engage in detailed carbon footprint measuring and sometimes establish carbon trading or reward-and-penalty schemes amongst the participants to incentivise the reduction of carbon emissions. Whilst there are important differences between these initiatives, they have in common the idea that individual change is supported within small-group settings because new behaviours and attitudes become the norm and non-compliance is more likely to be socially sanctioned.

A third type of TSO initiative focuses on practical activities and/or the development of skills related to those activities. Skills are an important element of behaviours or practices (Reckwitz 2002, Pantzar and Shove 2010); many low carbon practices require participants to engage in different forms of activity and therefore require new capacities. While many of the small-group-based activities discussed above facilitate new skills in relation to energy use, travel choices, etc., there are a range of initiatives whose primary aim is to develop new skills for low carbon or environmentally-friendly living, including bike repair workshops, food growing, cookery and food preservation groups, sustainable building, DIY insulation and renewable energy workshops, and biodiversity/wildlife conservation groups. 'Reskilling' local communities is a key aim of the transition movement which was founded by Rob Hopkins (2008) in Kingsdale in Ireland in 2005 and then quickly spread to the UK starting from Totnes in 2006 (O'Rourke 2008, Haxeltine and Seyfang 2009, Kenis and Mathijs 2009, Seyfang 2009a, Seyfang 2009b, Höynälänmaa 2010, Smith 2011). Transition initiatives typically have a practical element, focusing explicitly on changing the ways in which things are done locally or helping people develop or re-discover certain skills that are required to lead low carbon lives (although the

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[3] See http://carbonconversations.org/content/find-out-more#WhatsItAllAbout.

transition movement often goes beyond 'reskilling' and into infrastructure provision – see below). Whilst this undeniably requires a change in behaviours, some authors emphasise that the transition movement does not primarily understand itself as a behaviour change initiative as it focuses at the development of resilience at the *community* level through a holistic approach. As Haxeltine and Seyfang argue: 'The Transitions movement (…) engages with systems of provision and seeks to institutionalise new (resilient and low-carbon) social institutions and social norms, unlike individualistic policy instruments for pro-environmental behaviour change' (Haxeltine and Syfang, 2009: 2).

This then brings us to the final group of TSO initiatives that aim to provide alternative 'infrastructures' (Shove 2003, Van Vliet et al. 2005, Pantzar and Shove 2010) or 'systems of provision' (Seyfang and Smith 2007). This usually requires the pooling of resources (financial, material, expertise, etc.) and the establishment of new, local institutions. Examples include sustainable housing projects, community farms and allotments, renewable energy co-operatives, food co-operatives, farmers markets, local currencies (Freathy and Hare 2004, Seyfang 2006a, Seyfang 2006b, CSE/CDX 2007, Bergman et al. 2008, DEFRA 2009, Haxeltine and Seyfang 2009, Seyfang 2010). The provision of infrastructures or changes in 'systems of provision' *enables* behaviour change because it alters the broader context within which behaviours occur. For example, the presence of a regular farmers market involving a range of local producers, will ease access to locally produced food and is thus likely to increase local food consumption.

The available evidence base

The role of TSO interventions in fostering pro-environmental behaviour change is a relatively new research agenda, so it is no surprise that evidence has only recently started to emerge and is still rather 'patchy' (Steward et al. 2009). The evidence presented so far covers studies of a variety of different organisations, including small, local community-based organisations (e.g. many of the organisations in Middlemiss' study (2009) or Seyfang's (2006b) study of local trading and currency schemes), larger organisations or networks of organisations that operate nationally (such as WWF and National Trust projects, Global Action Plan or the Transition Movement), and social enterprises, such as food co-operatives (Freathy and Hare 2004) or community energy enterprises (Hoffman and High-Pippert 2010, Mulugetta et al. 2010). However, many studies do not discuss organisations' constitutional form, size and resources in detail. The role of such institutional characteristics thus still needs to be examined in more depth.

Several studies note that TSOs often struggle to measure the outcomes of their initiatives because of time constraints and/or lack of expertise (DEFRA 2006, CAT 2010). In addition, measuring the impact of taking part in a TSO initiative is a methodological challenge (DEFRA 2006, SCR 2006, Steward et al. 2009), also known as the 'attribution problem': Since behaviour change can occur for a variety of reasons, it is difficult to establish the extent to which change has been enabled by participation in one particular initiative. In addition, behaviours change over time. This requires longitudinal research to differentiate short- and long-term effects of taking part in an initiative.

There is some evidence within the public health literature that participation in community-based projects can support changes in awareness and behaviours. For example, various evaluations of Alcoholics Anonymous initiatives have shown that participation significantly increases abstinent

behaviours (e.g. Kelly et al. 2009, Kelly et al. 2011). Kelly and colleagues explained this referring to the socially supportive environment that Alcoholics Anonymous groups provide: social network ties that support and promote abstinent norms and behaviours had increased (Kelly et al. 2011). An evaluation of a community-based breast cancer-screening programme for Hopi women also demonstrated that awareness of the prevention effects of cancer-screening programmes had risen by almost 30% after participation in the programme and that participation in screening programmes had risen by 25% (Brown et al. 2011). However, we need to consider here that motivating people to change their health-related behaviours differs from motivating them to adopt more pro-environmental behaviours. Healthier lifestyles have direct and often noticeable benefits whilst pro-environmental behaviours may often not have any immediate advantages to the individual. Some pro-environmental behaviours may save people money (e.g. turning down the thermostat) or increase their social status (solar PV panels on your roof) but some may also involve a reduction of comfort and convenience (e.g. warmth, convenience of the car) and/or be more expensive (organic food, green electricity tariffs, trains instead of flights) whilst the environmental benefits lie in the distant future and may not be directly noticeable by the individual engaging in those behaviours. Therefore, we cannot assume that positive results from third sector behaviour change initiatives in one area imply effectiveness of interventions in other areas.

Quantitative evidence on pro-environmental behaviour change is so far mostly limited to studies on waste and home energy behaviours. An evaluation of the Global Action Plan (GAP) 'Ecoteams' approach showed an average reduction of household waste of almost 19.66% and an increase of household recycling rates by 7.71% per team (based on data collected by EcoTeam organisers) (Hargreaves et al. 2008). Electricity consumption was reduced by an average 6.86% per team (Hargreaves et al. 2008). Evaluations have credited GAP's success to the supportive social context that the teams provide, the opportunity for reflection and exchange of localised knowledge, and feedback on behavioural outcomes to the participants (Georg 1999, Hobson 2003, Hargreaves et al. 2008, Nye and Hargreaves 2010). A report on the *Mobilising Action on Climate Change* stakeholder workshops which were facilitated by the Centre for Sustainable Energy for DEFRA in 2007 states that information provided in face-to-face meetings can support long-term behaviour changes, citing evidence from community-based energy efficiency programmes (CSE/CDX 2007).

Evaluations of community recycling and re-use initiatives have estimated that about 500,000 tonnes of materials (e.g. appliances, textiles, furniture) were prevented from going to landfill through re-use projects (Cox et al. 2010) – a typical example of infrastructure provision. However, this evaluation study did not estimate the extent of behaviour change that the provision of reuse services or recycling facilities enabled. A BTCV (British Trust for Conservation Volunteers) report (no year) claims that seven out of ten of their volunteers who took part in a survey reported that they had increased recycling activities and had also given pro-environmental advice to other people in their closer networks.

A range of studies report results from *qualitative* interviews with participants in different types of community-based projects. Middlemiss in her in-depth research of six community-based initiatives reports that they had positive effects on participants' awareness and pro-environmental behaviours, particularly if the participants did not already have a strong interest in environmental issues before

they participated (Middlemiss 2009). A Carbon Rationing Action Group evaluation stated that most of the interviewees reported they had become more 'carbon literate' through the project, including a better understanding of the source of emissions and ways to reduce them (Howell 2009). Participants also stated that the initiative had helped them reduce their carbon footprint even further (most of them had already tried to reduce their emissions before participation); the report estimated that participants' carbon footprint was 31% lower than the UK average (Howell 2009). Participants confirmed that the exchange of knowledge and the positive 'moral support' from the group had helped them make those changes (Howell 2009). DEFRA's evaluations of the Environmental Action Plan projects also report that several projects have encouraged behaviour changes, particularly in relation to waste reduction and home energy use, whilst there was much less evidence of more challenging behaviour changes, for example in relation to travel (DEFRA 2009). The finding that some behaviours may be harder to shift than others is confirmed in a report on Global Action Plan where there is evidence of greater impacts on waste and home energy behaviours than on transport practices (Nye and Burgess 2008).

The relatively scarce evidence so far regarding the effectiveness of TSO interventions in fostering behaviour change calls for further empirical research in this area, including a broader discussion of the methodological issues involved in measuring TSO influence.

Limitations of third sector initiatives

As discussed in the previous section, the literature on the role of third sector initiatives in promoting pro-environmental behaviour change provides some evidence for influence on 'easy to tackle' behaviours, particularly through small-group settings or infrastructure provisions. However, it also highlights a range of barriers to inducing more extensive behaviour changes. These barriers include difficulties of engaging the public in environmental issues; problems of scaling up; and lack of resources.

Some authors discuss the **difficulties of engaging** the broader public in issues around climate change and the challenge that this poses for TSOs. As many people believe that climate change will not have any direct effects on them and the places they live in the very near future, it is a challenge for TSOs to engage people in action around this issue, beyond those already committed to take some action. Different strategies are therefore used to 'bring home' and make visible the issue of climate change, for example through an emphasis on potential local impacts or the evocation of emotions through images such as polar bears stranded in ice flows (Slocum 2004). Other reports also state that it is difficult to engage the public on these issues because of certain widespread images of the environmental movement ('lentil eating tree huggers', 'doom and gloom', 'hippies') and because many people think that changes in their individual behaviours would not make a significant difference to existing environmental problems (DEFRA 2007, Baring Foundation 2010).[4]

Another challenge to TSO influence relates to '**scaling up**' alternative pro-environmental practices. There is some evidence that pro-environmental TSO projects often attract people with a prior interest in environmental matters and some studies have identified reaching out of environmental projects to a

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[4] This is often termed as a lack of self-efficacy in the social-psychological literature on behaviour change (e.g. Kollmuss and Agyeman 2002).

wider audience as one of the major challenges (Warburton 2008, Howell 2009, Seyfang 2009a, Steward et al. 2009, Smith 2011). Whilst TSOs can promote innovative pro-environmental behaviours, several authors state that this is difficult to scale up and spread if those behaviours are different from – or run counter to – mainstream attitudes and norms (Georg 1999, Seyfang and Smith 2007, Seyfang 2010). In addition, existing infrastructures can be a barrier to scaling up or achieving more wide-ranging changes. Several papers quote evidence that participants in environmental third sector projects often feel that existing socio-technical infrastructures, for example in relation to buildings, transport and production and consumption systems, 'lock' them into existing unsustainable behaviours, making further changes difficult to achieve (Hobson 2003, Warburton 2008, Howell 2009, Heiskanen et al. 2010).

Finally, another barrier to further change that the literature often identifies is the lack of **resources**. Several studies have pointed out that higher impact behaviour changes are more likely to be achieved through time-intensive initiatives (particularly small group settings and regular face-to-face interaction) which may be a barrier to scaling those initiatives up (Georg 1999, DEFRA 2007). At the same time, several reports point to insufficient resources, including funding, time, expertise and leadership, for TSOs to provide more effective initiatives or engage more deeply with the behaviour change agenda (Church 2005, SCR 2006, Baring Foundation 2010, CAT 2010). DEFRA's Environmental Action Fund evaluation also discovered that a large proportion of project organisers had insufficient knowledge of behaviour change theories to inform their activities (DEFRA 2006). This appears to reinforce the finding that several projects do not identify behaviour change as one of their main aims but frame their activities in terms of awareness raising, the provision of information, advice and training or the creation of new infrastructures (SCR 2006). Some commentators go so far as suggesting that TSOs should not explicitly aim at behaviour changes because this would be too paternalistic an approach (CSE/CDX 2007).

Considering those reflections it is perhaps not a surprise that several reports have stressed that third sector behaviour change initiatives will require supportive policy frameworks and resources to be effective (CAT 2010, Houghton 2010, Seyfang 2010).

Discussion and concluding remarks

What emerges from this review is that research on the role of TSOs in pro-environmental behaviour change is still in its early stages. We have been able to identify different claims that are made about TSOs' potential to influence people's behaviours. These claims are mainly based on the assumption that TSOs are trusted by and close to citizens and that they can promote social innovations because they are more independent from dominant social, political or economic norms and pressures. Several studies also claim that behaviour change can be achieved through small group settings typical for third sector initiatives because new norms and practices can emerge and be maintained within such contexts. Furthermore, TSOs are thought to be able to influence behaviours when they provide alternative infrastructure that facilitate new practices.

However, the evidence provided by the existing literature is often based on specific cases or small-scale studies. There is much scope for more comparative in-depth research as well as quantitative

studies that cover a broader range of initiatives. However, research of this kind faces a number of challenges as behaviour change can be difficult to observe and measure. Identifying the extent of behaviour change that has occurred is not trivial – surveys and interviews are likely to be affected by the 'social desirability bias' and respondents may find it hard to remember what has changed, when and why. Before-and-after studies of interventions that target energy consumption, travel behaviour, waste, etc. may be required to examine behaviour change more robustly, but longitudinal studies are a resource-intensive undertaking. This is compounded by the difficulties associated with establishing the particular role that participation in a third sector initiative may have played and how this interacts with other possible influences from changes in personal circumstances or broader social changes.

More research is also required on the relationship between different organisational characteristics and behaviour change. General claims about the third sector as a whole are likely to be relatively meaningless. Given the highly diverse nature of the third sector, it is important to better understand the impact of factors such as size, financial and organisational capacity, geographical scope and scale, core mission and 'philosophy', etc. on the effectiveness of interventions. One example of a particularly pertinent debate here is that over the philosophical or theoretical assumptions guiding behaviour change interventions. For example, an initiative that assumes behaviour change is driven by extrinsic motivations such as financial or status rewards is likely to differ in terms of its setup and implementation from an initiative that assumes behaviour change will be deeper and more long-lasting if it is intrinsically motivated (Lindenberg and Steg 2007, de Groot and Steg 2009, Crompton et al. 2010).

We also need to be careful about general claims regarding pro-environmental behaviour change. As we have already noted, the type of practice change can be very different from that of other fields of activity such as health. However, pro-environmental behaviours and practices themselves vary considerably. The type of intervention and its effectiveness will differ across different types of practices, be it heating practices, mobility practices or the consumption of other goods and services. Some practices are easier to shape in a low-carbon direction than others. Finally, arguably the biggest research question – and most significant challenge for behaviour change activists – is that of scaling-up. Much of the research has focused on relatively small-scale initiatives, practice changes amongst the already-committed and/or relatively marginal changes in behaviour. Is it possible to scale up third sector interventions that promote low carbon living from local contexts and small groups of already environmentally engaged citizens to the broader public? Or does such upscaling depend crucially on broader transformations of social, political and economic contexts?

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About the Centre

The third sector provides support and services to millions of people. Whether providing front-line services, making policy or campaigning for change, good quality research is vital for organisations to achieve the best possible impact. The Third Sector Research Centre exists to develop the evidence base on, for and with the third sector in the UK. Working closely with practitioners, policy-makers and other academics, TSRC is undertaking and reviewing research, and making this research widely available. The Centre works in collaboration with the third sector, ensuring its research reflects the realities of those working within it, and helping to build the sector's capacity to use and conduct research.

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Environment

Whilst environmental protests have had a big voice in recent years, we have relatively little knowledge about the broader third sector's relationship with the environment. This project will examine the activities and contributions of a broad range of environmental organisations, as well as the extent to which wider elements of the third sector are responding to environmental challenges, in particular climate change. The project focuses on three main elements: mapping the environmental third sector; mainstreaming the environment; and promoting sustainable living. More information can be found on the TSRC website.

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