



Making carbon personal?

A snapshot of community initiatives, May 2007

Report to Defra

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June 2007

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1 Introduction

The purpose of this report is to provide a snapshot, as at May 2007, of UK initiatives that are seeking to explore individual carbon reduction within communities (of interest, location or organisation), with a view to understanding how close to (or far away from) individual carbon trading they might be.

The report was commissioned by Defra from the Centre for Sustainable Energy as part of its project examining the role of community initiatives in mobilising individual behaviour change.

The initial aim of the study was to examine community initiatives focused on individual carbon trading. However, early in the research it was clear that few initiatives were even considering this approach, let alone doing it. So a wider net was cast to include initiatives focused on using individual carbon footprinting as their principal tool for engaging community members with reducing their personal carbon emissions, in some cases as a first step towards trying to 'live within an allowance' and then, potentially, trading.

The initiatives that have been included in this study are therefore all groups or organisations which have done, or are in the process of doing, some kind of individual or collective carbon footprinting assessment, with the aim of reducing individual / collective carbon emissions. Additionally there are some initiatives which do not quite fit this description but which are frequently referenced in relation to this aim, particularly those with 'pledge' based approaches.

The 24 initiatives described here were identified through an extensive web search and by talking to individuals who were working in the field. The information gleaned from these sources is combined with a more in-depth study of 5 of these initiatives, based on telephone interviews with representatives and participants.

It is not claimed that this constitutes an exhaustive list of all such initiatives; however it is likely to include the vast majority of initiatives that have been established for more than six months.

The structure of this report is as follows:

Section 2: Brief description and categorisation of all initiatives identified

Section 3: Description of the five initiatives which were the subject of interviews. These were:

- Carbon Rationing Action Groups (CRAGs)
- CRed
- RSA Carbon Limited
- Manchester is My Planet pledge campaign
- Going Carbon Neutral Riverside

Section 4: Conclusions and recommendations

The initiatives listed in the next section vary considerably in their details. Therefore the initiatives are categorised according to eight themes: type of community; approach to footprinting; baseline used; reduction targets; reduction strategy; focus (carbon, energy etc); online presence; role of carbon in purpose; consideration of trading.

The table below shows the themes and categories within each theme, along with the number of occurrences of each category in the list of 24 initiatives. Note that as some initiatives have been given more than one category per theme, or in some cases the category for a particular theme was not known, the total in each theme does not always sum to 24.

Categorising community initiatives to engage individuals with their carbon emissions

Category	Number of initiatives in this category (N = 24)
Community: the community that the initiative aims to reach.	
Covers whole locality	9
Covers individuals within specific locality	9
Covers households within specific locality	1
Covers organisations within specific locality	2
Brings together groups in different localities	2
Group of individuals, no specific locality	4
Community of interest	2
Footprinting: approach to carbon footprinting	
Individual footprinting	6
Household / building footprinting	7
Community footprinting	6
Organisation-based footprinting	3
Currently being planned / considered	1
Calculator available but result not recorded	1
No footprinting	4
Baseline: the baseline used for targets or estimates of reductions from pledges	
Own footprint survey	13
General UK figures	6
None given	5
Targets for reduction	
Quantified target: short term (to 2015)	7
Quantified target: long term (2015 onwards)	3
Carbon neutral by specified date	0
Carbon neutral: no date specified	4
No target	7
Reduction strategy	
Determined by individual	2
Pledges: specific	5
Pledges: general	1
Advice provision: general	14
Advice provision: tailored	6
Provision of measures	4
Offsetting: local	1
Offsetting: international	1
Promotion of renewable energy	5
Focus	
Carbon	17
Energy and carbon	1
Energy	2
Carbon / energy is one of a range of environmental objectives	3
Online presence	
Main presence is online	1
Main public-facing presence is online	3
On-line support / forum for off-line group	2
Functionality available through internet and other means	4
Website only for information about organisation	11
No website: featured on another organisation's website	2
No website	1
Purpose	
Climate change communication is main aim	4
Energy efficiency is main aim	3
Carbon reduction is main aim	12
Group has a range of environmental objectives	4
Trading	
Has been considered	1
Possibility for the future: have not yet considered how it would work	2
Has not been considered	17
Planned for the future, with consideration of how it would work	2 (3 incl. RSA with MIMP)
Game has been developed to illustrate the concept within small group (8-10)	1

2 Summary of UK initiatives

2.1 Ashton Hayes Going Carbon Neutral

www.goingcarbonneutral.co.uk

Classification	
Community	Covers whole locality
Footprinting	Community footprinting
Baseline	Own footprint survey
Targets	Carbon neutral: no date specified
Reduction strategy	Advice provision: general Advice provision: tailored Offsetting: local Promotion of renewable energy Building / household-based approach
Focus	Carbon
Online presence	Website only for information about organisation
Purpose	Carbon reduction is main aim
Trading	Has not been considered

Ashton Hayes in Cheshire has received a great deal of publicity as the first village to aim for carbon neutrality. The project is lead by the parish council and was officially launched in January 2006. It has received technical support from the University of Chester, the Energy Saving Trust, CRed, Forum for the Future, and UKCIP, among others, and is sponsored by several businesses with local links. The population of the village is around 1,000 and the village's annual CO₂ emissions were estimated in May 2006 to be 4765.76 tonnes: 4,666 kg CO₂ per person. The village aims to reduce its energy use and offset the rest of its carbon emissions. Some of the offsets will come from a local native tree planting scheme, although supporting offset schemes in other countries has not been ruled out. The project's website diary attests to much international interest, with journalists visiting from Canada, Brazil, Norway and Romania in May 2007 alone.

2.2 Blewbury Energy Initiative

<http://www.blewbury.co.uk/energy/energy.htm>

Classification	
Community	Covers whole locality
Footprinting	Household / building footprinting Community footprinting
Baseline	Own footprint survey
Targets	No target
Reduction strategy	Advice provision: general Advice provision: tailored Provision of measures (?)
Focus	Energy and carbon
Online presence	Website only for information about organisation
Purpose	Energy efficiency is main aim
Trading	Has not been considered

Blewbury is a village in Oxfordshire. The aim of the Energy Initiative is to reduce energy consumption in buildings in the village, and to encourage the use of renewable energy. The initiative has been running since 2005. In 2006 the village's carbon footprint was estimated at 5136 tonnes of CO₂ annually over 707 buildings. The next stage of the project will be to publicise ways of increasing the efficiency of domestic, community and commercial buildings in the area.

2.3 The Bollington Carbon Revolution

<http://www.happy.valley.org.uk/revolution/revolution.htm>

Classification	
Community	Covers whole locality
Footprinting	Currently being planned / considered
Baseline	Own footprint survey
Targets	Quantified target: short term (to 2015)
Reduction strategy	Advice provision: general Promotion of renewable energy
Focus	Carbon
Online presence	Website only for information about organisation
Purpose	Carbon reduction is main aim
Trading	Has not been considered

The Bollington Carbon Revolution group was formed towards the end of 2006, with the aim of reducing the town's carbon footprint, and is a subcommittee of the local Civic Society. At the beginning of 2007 it published its strategy report. It is planned to establish the town's footprint by the end of 2007, and reduce the footprint by 5% in 2008 and by 10% in 2009.

Key areas identified for action are:

- Establish the town's carbon footprint and monitor reductions over the coming years;
- Provide advice to residents, businesses and the community as a whole on how to reduce their carbon footprint;
- Engage local schools;
- Install low carbon renewable technologies, including a flagship water wheel project.

2.4 Brilley Mountain Eco-Group

Classification	
Community	Covers whole locality
Footprinting	Community footprinting
Baseline	Own footprint survey
Targets	Unknown
Reduction strategy	Unknown
Focus	Carbon
Online presence	No website
Purpose	Group has a range of environmental objectives
Trading	Unknown

Brilley is a small village in Herefordshire which is aiming to reduce its village-wide carbon emissions. It is in the early stages of this project. An initial energy audit had Brilley generating about 3,230 tonnes of CO₂ over the past year, or about 10.1 tonnes per person.

2.5 Cambridge Carbon Footprint

<http://www.cambridgecarbonfootprint.org/>

Classification	
Community	Covers individuals within specific locality Covers organisations within specific locality
Footprinting	Individual footprinting Organisation-based footprinting
Baseline	None given
Targets	No target
Reduction strategy	Advice provision: general
Focus	Carbon
Online presence	Website only for information about organisation
Purpose	Climate change communication is main aim
Trading	Has not been considered

Cambridge Carbon Footprint is a local voluntary organisation that aims to help people become more aware of their climate change impact, and of how to reduce their impact. One of their activities is running stalls at local events where they calculate the carbon footprint of interested individuals.

Cambridge Carbon Footprint has partnered with Cambridge Ethnic Community Forum and Cambridge Architectural Research (a sustainability consultancy) to form the Akashi Project (<http://www.akashi.org.uk/about.html>), an initiative for creating a project that would focus on engaging people of different faiths and cultures in the debate about climate change, funded by Defra's Climate Challenge fund. As this is a communications focused project, it is not included in the list here, but has the potential to turn into a project that is more focused on carbon reduction.

2.6 Carbon Neutral Biggar

<http://www.carbon:neutral:biggar.com/>

Classification	
Community	Covers whole locality
Footprinting	Community footprinting
Baseline	Own footprint survey
Targets	Carbon neutral: no date specified
Reduction strategy	Unclear Offsetting –local
Focus	Carbon
Online presence	Website only for information about organisation
Purpose	Carbon reduction is main aim
Trading	Has not been considered

Biggar is a town in Scotland which has the same aim as Ashton Hayes – to go carbon neutral by reducing some emissions and offsetting the rest. It is at an earlier stage than Ashton Hayes. Carbon Neutral Biggar is currently undertaking a survey of energy use in the town, that has been delivered door to door and is also available on-line. The survey includes transportation, air travel, food, household energy consumption, waste production, and household information such as use of energy saving light bulbs and use of insulation.

2.7 Carbon Neutral Newcastle

<http://www.carbonneutralnewcastle.com>

Classification	
Community	Covers whole locality
Footprinting	Calculator available but result not recorded
Baseline	None given
Targets	Carbon neutral: no date specified
Reduction strategy	Advice provision: general Offsetting –local
Focus	Carbon
Online presence	Functionality available through internet and other means
Purpose	Carbon reduction is main aim
Trading	Has not been considered

Carbon Neutral Newcastle is run by a charity, Carbon Neutral North East. Its management group includes representatives from Newcastle City Council, Scottish Power, Environment Agency, Newcastle Warm Zone, Nexus (the local passenger transport executive) and Newcastle Airport. The Carbon Neutral Company helped with the development of the project and offsets from the company are available to buy on the Carbon Neutral Newcastle website. The proceeds from this go to offsetting projects in the North East. There is a page on what individuals can do, with tips on reducing emissions and a carbon calculator that allows users to estimate their emissions and offset them by donating money to local projects. The initiative also provides advice to businesses and runs communications campaigns.

2.8 Carbon Neutral Ipswich Town FC

<http://www.saveyourenergyfortheblues.co.uk/>

Classification	
Community	Community of interest
Footprinting	Organisation-based footprinting
Baseline	Own footprint survey
Targets	Quantified target: short term (to 2015)
Reduction strategy	Pledges: specific
Focus	Carbon
Online presence	Functionality available through internet and other means
Purpose	Carbon reduction is main aim
Trading	Has not been considered

Ipswich supporters were invited to make carbon reduction pledges and were entered into a prize draw as a result of doing so. The aim was that supporters would reduce their emissions by an amount equal to the club's emissions over a season. The target for the 2006-7 season was reached and Ipswich's main sponsor Eon donated money to the club for the transfer of a player once the target had been reached.

2.9 Carbon Rationing Action Groups (CRAGs)

(See also section 3.1)

<http://www.carbonrationing.org.uk>

Classification	
Community	Covers individuals within specific locality
Footprinting	Individual footprinting
Baseline	General UK figures
Targets	Quantified target: short term
Reduction strategy	Determined by individual
Focus	Carbon
Online presence	On-line support / forum for off-line group
Purpose	Carbon reduction is main aim
Trading	Has been considered

A CRAG is a group of people living in the same area who decide to limit their carbon emissions to a certain level. There is a standard template for how the CRAG works, but each group is free to change this format as required. Most groups' targets are between 4000 and 5000 kg CO₂, covering heating, electricity, car and plane travel, although it is up to the group to decide exactly what they will cover. Some groups have decided to include public transport as well. The start and end of the 'carbon year' are also decided by the group. Emissions factors can be decided by the group or standard CRAG factors can be used. Some groups are also calculating their position after 6 months. Group members agree to pay a penalty for each kg of CO₂ they emit over the target, sometimes setting a limit to the total penalty paid per person. The proceeds can either be distributed amongst the members of the group or donated to charity. Some groups have a 'carbon accountant', who is a member of another group, so as to be impartial, and the members email him or her with details of their electricity bills, car mileage, etc. In other groups, members calculate their own emissions. There is an online forum, and groups also meet at intervals.

There are 31 groups listed on the CRAGs website. Andy Ross started the first one in the West Midlands in January 2006, called the West Midlands CCC Personal Carbon Rationing Scheme. In February 2006 the Oxford group was formed as the result of a COIN (Climate Outreach and Information Network) action groups day. The West Midlands Personal Carbon Rationing Scheme became the Leamington CRAG in April 06. The Hereford group had its first meeting in May 06, with Clapham following in June 06, and Islington in October 06. From November 06 – March 07 groups were established in Wokingham, Leeds, Glasgow, Surrey, Chiswick, Redland (Bristol), Edinburgh, Sevenoaks, and Stroud. Around 17 more groups are in the process of being set up at present, two of which are based around businesses rather than geographical areas, and CRAGs have received growing publicity.

The Leamington group has done its accounts for the first year, with average emissions of 3083kg CO₂, with three individuals out of 16 having carbon debts (and two of these three living in rural areas).

A similar movement is starting in France, led by Environmentalists for Nuclear Energy. (See http://www.ecolo.org/documents/documents_in_french/GARC:AEPN:07:fr.pdf for more information in French).

2.10 Church of England Shrinking the Footprint

<http://www.shrinkingthefootprint.cofe.anglican.org/>

Classification	
Community	Community of interest
Footprinting	Building energy audit
Baseline	General UK figures
Targets	Quantified target: long term (2015 onwards)
Reduction strategy	Advice provision: general
Focus	Carbon
Online presence	Website only for information about organisation
Purpose	Carbon reduction is main aim
Trading	Has not been considered

This is the Church of England's national strategic campaign to enable its members and institutions to address climate change. The aim is to reduce the Church of England's carbon emissions to 40% of current levels by 2050. The first step was the Church of England National Energy Audit. From June to October 2006, Church organisations at all levels were invited to record their energy use for 2005. The results of this were collated by diocese and then churches were asked to undertake a mini energy audit covering interior and exterior lighting, heating, insulation, and transport. The results are currently being collated, and it is intended that energy use will be measured again in 2008.

2.11 CRed

(See also section 3.2)

<http://www.cred:uk.org>

Classification	
Community	Covers individuals within specific locality AND Group of individuals, no specific locality AND Brings together groups in different localities
Footprinting	Individual footprinting
Baseline	General UK figures
Targets	Quantified target: long term (2015 onwards)
Reduction strategy	Pledges: specific Advice provision: general
Focus	Carbon
Online presence	Functionality available through internet and other means
Purpose	Carbon reduction is main aim
Trading	Possibility for the future: have not yet considered how it would work

CRed is an initiative from the University of East Anglia. Individuals, businesses, and schools can sign up and choose from a range of pledges. The range is more advanced than most pledge websites and has quite detailed information. They can use a 'domestic energy tool' (in the case of individuals) which enables them to track the energy use of their home, compare it against national averages, and model what would happen if they installed various energy saving measures. There is also a carbon calculator which records household, transport (including public transport) and aviation carbon emissions and compares them with the national average and the 60% reduction target that CRed wants its users to aim for. There are several regional versions of CRed, covering Norwich, North Norfolk, Suffolk, Essex, the University of East Anglia, Camden (business focused), Chester, and Chapel Hill (in the United States). So far, across the whole of CRed, 50,742 pledges had been made at the time of writing. This number is published on the website along with an estimate of how much carbon these pledges have saved.

The target is to cut UK emissions by 60% by 2025, equal to 3.6 tonnes per person (the baseline of 9 tonnes per person includes indirect emissions).

2.12 Echo Action

<http://www.echoaction.net>

Classification	
Community	Covers households within specific locality AND Brings together groups in different localities
Footprinting	Household / building footprinting
Baseline	Own footprint survey
Targets	Quantified target: short term (to 2015)
Reduction strategy	Advice provision: general Advice provision: tailored Provision of measures Promotion of renewable energy
Focus	Energy
Online presence	Website only for information about organisation
Purpose	Energy efficiency is main aim
Trading	Planned for the future, with consideration of how it would work

Energy Conscious Households in Action (Echo Action) is a European project, funded by the Intelligent Energy Europe programme, which brings together around 2,000 households in Bulgaria, Germany, Italy, Lithuania, Portugal, Sweden and the UK. In the UK, households in London are participating (currently Brent and Lambeth).

Participating households aim to make their energy consumption more sustainable through a combination of behavioural changes and installation of energy efficiency measures and renewable energy technology. The households are organised in local workgroups which meet regularly over a period of 14 months and are coordinated by local energy agencies. One of the main aims of the project is to put households in touch with technology providers and ethical banks, in order to facilitate substantial retrofit of technologies in some households. It is not clear how long the project has been running.

The project aims to encourage all participating families to reduce their energy use by at least 10% per year, with 10% of participating families reducing their energy use by 20% per year. This will save around 1,500 tonnes of CO₂ per year. The project will also create a European network of Echo Action cities.

The London part of the project aims to go beyond the design of the main project and introduce personal carbon trading within one of the workgroups. This is currently in the shape of a proposal developed by SEA-Renue, an energy agency based in Lambeth. RSA Carbon Limited has also had input. It is currently awaiting the confirmation of match funding and is planned to start in September 2007. The proposal is to trial personal carbon trading in a group in London that is taking part in the wider Echo Action project. It would be based on a carbon trading game which was developed by Global Action Plan, would run for a year with a group of eight people (although there is the possibility of expanding this) and would not use real money for the trading.

2.13 Fair Shares, Fair Choice

<http://www.fairsharesfairchoice.com>

Classification	
Community	Covers individuals within specific locality
Footprinting	Individual footprinting
Baseline	General UK figures
Targets	Quantified target: short term
Reduction strategy	Advice provision: general
Focus	Carbon
Online presence	Main presence is online
Purpose	Carbon reduction is main aim
Trading	Has not been considered

This is an online initiative co-ordinated by Sustainability South West, the Sustainable Development champion for the South West region of England. It is based on a South West carbon budget which is 4.2 tonnes per person in 2007 and will reduce annually. Users sign up (at the time of writing there were 358 users) and calculate their carbon footprint. They are then given advice on how to reduce their emissions. Communities, individuals, and workplaces can sign up and contribute stories and comments.

2.14 Global Action Plan

<http://www.globalactionplan.org.uk/>

Classification	
Community	Covers individuals within specific locality Covers organisations within specific locality
Footprinting	Individual footprinting Household / building footprinting Organisation-based footprinting
Baseline	Unknown
Targets	Unknown
Reduction strategy	Advice provision: general Advice provision: tailored
Focus	Carbon / energy is one of a range of environmental objectives

Online presence	Website only for information about organisation
Purpose	Group has a range of environmental objectives
Trading	Game has been developed to illustrate the concept

Global Action Plan is a charity that runs a range of programmes which bring people together to take steps to reduce their own environmental impact. They work with communities, businesses and schools. They are focused on overall environmental impact rather than carbon emissions specifically. Their most relevant programme is Eco Teams. This involves groups of around half a dozen households that meet once a month over a 4 month period, taking manageable steps to reduce the environmental impact of their waste, energy use, water use, and transport and shopping habits.

Global Action Plan has developed a game to illustrate the concept of personal carbon trading. The London group of Echo Action (see section 2.12) plans to base its personal carbon trading trials on this game.

2.15 Global Cool

<http://www.global:cool.com>

Classification	
Community	Group of individuals, no specific locality
Footprinting	No footprinting
Baseline	None given
Targets	Quantified target: long term (2015 onwards)
Reduction strategy	Pledges: specific Advice provision: general
Focus	Carbon
Online presence	Main public-facing presence is online
Purpose	Carbon reduction is main aim
Trading	Has not been considered

Global Cool is based in London and Los Angeles. It is teaming up with big names in the entertainment industry in order to spread awareness about climate change. Supporters include international musicians and Hollywood and Bollywood actors. The website has a YouTube-style page ('Cooltube') with messages from celebrities.

Donations can be made which pay for alternative energy and energy reduction projects and cover the operation of the charity.

Users can register on the site and save their carbon pledges. They are given a figure for the amount of CO₂ they will save if they keep to all their pledges. The target is to encourage a billion people to reduce their emissions by 1 tonne each relative to 2006 by 2016.

2.16 Going Carbon Neutral Riverside

(See also section 3.3)

<http://www.goingcarbonneutral.net/>

Classification	
Community	Covers whole locality
Footprinting	Community footprinting Household / building footprinting
Baseline	Own footprint survey
Targets	Carbon neutral: no date specified
Reduction strategy	Provision of measures
Focus	Carbon
Online presence	Website only for information about organisation
Purpose	Carbon reduction is main aim
Trading	Possibility for the future: have not yet considered how it would work

Riverside is an area of Stirling in Scotland with a population of around 1500 people. Carbon Neutral Riverside is a community group which works with Stirling Council, Riverside Primary School and other local organisations. The group started at the end of 2006 and so far has undertaken a survey of energy use in Riverside. The next step will be to apply for funding and approach companies to install energy efficiency measures. The surveys will be repeated annually to follow the progress of the project. There are no targets as yet, apart from the overall target of eventually being carbon neutral, with the focus currently on engagement. Carbon trading is mentioned on the website as being a future possibility.

2.17 Go Zero Chew Magna

www.gozero.org.uk

Classification	
Community	Covers individuals within specific locality
Footprinting	Household / building footprinting
Baseline	Own footprint survey
Targets	No target
Reduction strategy	Advice provision: general Promotion of renewable energy Offsetting: international
Focus	Carbon / energy is one of a range of environmental objectives
Online presence	Website only for information about organisation
Purpose	Group has a range of environmental objectives
Trading	Has not been considered

Go Zero is a community project based in the parish of Chew Magna near Bristol. It has four sub-groups: recycling, transport and energy, people and consumption (food), and converging world (social justice in the developing world).

The transport and energy group looks at raising awareness of energy use and promotes energy efficiency and renewable energy. In April a household energy consumption and recycling questionnaire was distributed in the parish. The website has an emphasis on offsetting, with donations to the offsetting fund being approximately equal to a person's estimate of their carbon emissions. Donations go to two schemes in Tamil Nadu in India; tree-planting and the installation of wind turbines.

2.18 I Count

www.icount.org.uk

Classification	
Community	Group of individuals, no specific locality
Footprinting	No footprinting
Baseline	None given
Targets	No target (for reductions from individual pledges)
Reduction strategy	Pledges: specific
Focus	Carbon
Online presence	Main public-facing presence is online (for individual pledges)
Purpose	Climate change communication is main aim
Trading	Has not been considered

The I Count campaign's main focus is to lobby the government, but to support this it is building up a following of individuals who are pledging to reduce their carbon emissions. There are 17 pledges that users can make; some of these are communications-related, (e.g. emailing friends to tell them about the campaign), while others are focused on personal carbon reduction.

2.19 Low Carbon Wolvercote

<http://climatex.org/articles/lo:carb:communities/wolvercote:low:carbon:village/>

Classification	
Community	Covers individuals within specific locality
Footprinting	Currently being planned / considered
Baseline	Own footprint survey
Targets	No target
Reduction strategy	Pledges: specific
Focus	Carbon
Online presence	No website: featured on another organisation's website
Purpose	Carbon reduction is main aim
Trading	Has not been considered

Residents and community groups in Wolvercote have signed up to a 'village charter', pledging to undertake a number of measures, including measuring their carbon footprints in order to identify possible improvements, and monitoring their carbon footprints over time. Mark Lynas, the climate change writer and campaigner, lives in Wolvercote and is instrumental in the group.

2.20 Manchester is My Planet Pledge Campaign (MIMP)

(See also section 3.4)

<http://www.manchesterismyplanet.org/>

This summary concerns the Pledge Project, which is one project within the larger MIMP programme.

Classification	
Community	Covers individuals within specific locality
Footprinting	No footprinting
Baseline	General UK figures
Targets	Quantified target: short term (to 2015)
Reduction strategy	Pledges: general Advice provision: general
Focus	Carbon
Online presence	Functionality available through internet and other means
Purpose	Climate change communication is main aim
Trading	Planned for the future as part of RSA work (possibly as part of wider MIMP programme rather than the pledge project)

The Manchester is My Planet initiative, run by Manchester Knowledge, covers all of Greater Manchester's ten boroughs, a population of around three million people. The campaign brings together the public, private and voluntary sector. The initiative comprises a series of carbon reduction projects, starting with the Climate Change Pledge project. At the beginning of June 2007 almost 17,000 residents had signed up to this pledge, which reads 'I pledge to play my part in reducing this city's greenhouse gas emissions by 20 per cent before 2010, to help the UK meet its international commitment on climate change.' People who pledge are sent an information pack with tips on how to reduce their energy use, and are also given the national Energy Saving Trust Energy Efficiency Advice Centre phone number.

The baseline takes the average household's emissions to be 11 tonnes, making the 20% reduction 2.2 tonnes per household.

Other projects under the Manchester is My Planet umbrella include community renewables, supporting a local authority to implement a parking permit system of reduced parking rates for low emissions vehicles, and looking at the case for a sustainable energy agency for Greater Manchester. The programme is lead by Manchester Knowledge Capital, a partnership of all ten local authorities, four universities, the strategic health authority, other key public agencies and leading businesses.

2.21 North Leigh Energy Efficient Village

<http://www.wospweb.com/site/North:Leigh:Energy:Efficiency:Project/index.htm>

Classification	
Community	Covers whole locality
Footprinting	Building energy audit
Baseline	Own footprint survey
Targets	No target
Reduction strategy	Advice provision: general Advice provision: tailored Provision of measures
Focus	Energy
Online presence	No website: featured on another organisation's website
Purpose	Energy efficiency is main aim
Trading	Has not been considered

This is a village of around 1000 households in Oxfordshire. The parish council is running a project to measure the efficiency of the village and is currently regularly collecting meter readings from participating households, to give the footprint of various household types.

2.22 RSA Carbon Limited

(See also section 3.5)

<http://www.rsacarbonlimited.org>

Classification	
Community	Group of individuals, no specific locality
Footprinting	Individual footprinting
Baseline	General UK figures
Targets	Quantified target: short term (to 2015)
Reduction strategy	Determined by individual
Focus	Carbon
Online presence	Main public-facing presence is online
Purpose	Climate change communication is main aim
Trading	Planned for the future, with consideration of how it would work

This is a project recently established by the Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA), an independent charity with 26,000 Fellows. The aim of the project is to explore the concept of personal carbon trading through public dialogue and engagement, with the aim of providing policy recommendations. Users register on the site, submit information about their energy use (or use a selection of pre-set profiles), and can compare their carbon emissions with other users, including David Milliband and George Monbiot. The annual allowance is 5 tonnes CO₂. According to a news item published on the site in February 2007, the site has 3,596 registered users with an average carbon footprint of 6.16 tonnes of CO₂, although 43.2% had emissions below the allowance.

It is possible to buy 'virtual carbon credits' to balance their emissions, and the price varies as it does in the real carbon market. The price used is the EUA forward price for December 2008; £11.88 at the time of writing.

In the current version of Carbon Limited, there is no actually trading between individuals; instead, the payments for allowances go to projects which aim to reduce emissions. Users are able to suggest ideas for projects. The website also has a discussion and blog area.

The Carbon Limited project team will be carrying out some research into a community approach to carbon trading in the Cardiff South and Penarth constituency and in Manchester.

There are plans to launch a second version of the software that supports this site, which would include a trading mechanism for participants in trial groups, and the project team will consult on the design of this in mid-June.

2.23 Transition Towns

<http://www.transitiontowns.org/>

Classification	
Community	Covers individuals within specific locality
Footprinting	No footprinting
Baseline	None given
Targets	No target
Reduction strategy	n/a – current focus is peak oil
Focus	n/a – current focus is peak oil
Online presence	On-line support / forum for off-line group
Purpose	n/a – current focus is peak oil
Trading	Has not been considered

The Transition Towns have been included here because they are quite high profile initiatives and their omission from this report could have been considered an oversight. However, they do not at present fit the description of a community carbon reduction project, as they are focused on reducing their oil use in preparation for 'Peak Oil', but are not yet footprinting or looking at reductions specifically in terms of carbon. There are indications that they have begun to think about climate change and carbon reduction related to non-oil sources. For example, the Stroud Transition Town group recently set up a CRAG.

2.24 Wasteless Society

<http://www.wasteless.co.uk>

Classification	
Community	Covers whole locality
Footprinting	Community footprinting
Baseline	Own footprint survey
Targets	No target / unknown
Reduction strategy	Advice provision: tailored Promotion of renewable energy
Focus	Carbon / energy is one of a range of environmental objectives
Online presence	Website only for information about organisation
Purpose	Group has a range of environmental objectives
Trading	Has not been considered

Wasteless Society is an environmental group based in Bishop's Castle, Shropshire. It was initially concerned with waste and recycling, and over time moved on to energy use, carrying out the first carbon footprint of the area in 2004. In 2006 the organisation started a project to survey the carbon footprint of 400 homes in the area, followed up by reports to householders on how to reduce their energy use.

2.25 Others

Two other initiatives are worth noting but it has not been possible to find out more about them in the time scales of this research. These are Abingdon Carbon Cutters

(<http://climatex.org/articles/lo:carb:communities/abingdon:carbon:cutters/>), a group that meets regularly to discuss reducing its carbon emissions, and the Gloucester One Tonners, <http://theonetonners.blogspot.com/>. It is unclear whether this is a CRAG-style personal emissions reduction group, or a campaign focused group.

In addition a number of basic pledge campaigns have been carried out which are not included here. Often these are linked to prize draws. They include campaigns run by Devon County Council, North Wiltshire Council, Oxford City Council, Rising Tide, RSPB, Derwentside Council, and Caerphilly Council. Pledge campaigns have been included in the main summary list only if they are particularly innovative, have long timescales with ongoing communication with participants, and / or include assessments of emissions reductions linked to each pledge.

3 Interviews

This section provides further details on five initiatives selected for a more detailed telephone interview to give additional insights into different types of approach to engaging individuals with their personal carbon emissions. The semi-structured interviews were designed to explore the current status of the initiative, the experience to date and future plans. A lists of the questions around which the interviews were structured is included in the Appendix to this report.

3.1 CRAGs – Peter Norton, member of Hereford CRAG

3.1.1 Current status

The Hereford CRAG group started in May 2006 and has around a dozen members. The details of the functioning of the group were decided by discussion between members. The limit for individual carbon emissions in 2007-2008 is 4,500kg, and the group has decided not to apply financial penalties to emissions in excess of the target. The allowance will reduce by 10% each year. The group does not have a carbon accountant, rather each person works out their own emissions. Emissions are included from home energy use, private transport, public transport journeys over 30 miles, and flying, and the standard CRAG emissions factors are used. Where participants belong to households with children, the children are given one full allowance and so for example if a member of the group lives in a household of two adults and two children, their individual emissions are simply a quarter of the household's emissions. Renewable energy tariffs are counted as having zero emissions as long as they are from a supplier that guarantees 100% renewable energy. Reckoning of emissions is done annually, although some participants calculate theirs monthly to make sure they are on track. Indications at the moment are that by the end of their carbon year most, but not all, members will be under the limit.

The group started through a link with the original Leamington CRAG group, and most of the core members of the group were already acquainted through various other environmental groups.

3.1.2 Experience to date

Initially around eighteen people were interested in taking part in the group, and this has reduced to a core group of twelve. The group has found this to be the largest number of people it can effectively function with, and so their aim in engaging new people is to stimulate the formation of new groups, rather than add to the existing group. Members of the group have been active in spreading the word: for example, they gave a talk to members of Transition Town Stroud, which subsequently set up its own CRAG. Some members of the group who live in a village outside of Hereford are in talks with their parish council to set up a carbon neutral village initiative there.

The group meets every six weeks and one of the most positive things about the group in the interviewee's opinion is the support and advice available. The members come from various different backgrounds and have expertise in different areas, for example food (although food miles are not included in the carbon accounting, members of the group are also interested in reducing emissions associated with food production and transport) and home energy efficiency measures. Another very positive aspect of the group according to the interviewee is the opportunity to research the issues involved in carbon accounting. For example, the group has been considering how to treat emissions from vehicles running on bio diesel, and this has given them an opportunity to learn about different sources of the fuel and the 'cutting edge' debates about the environmental benefit of biofuels.

The Hereford group has a strong sense of being part of the wider group of CRAGs, with the interviewee finding the online nationwide CRAG forum to be a useful source of information.

3.1.3 Future plans

There has been discussion both among the national CRAG groups and within the Hereford group about whether to trade carbon between groups, and the general feeling at the moment is that members are taking action to reduce their own carbon and do not want to see their personal reduction efforts negated by someone else buying rights to emit more. However, there is some discussion about trading on the CRAG website, for example in relation to widening participation beyond the 'diehard greens'.

In terms of support from Government, there is a concern that if local government adopted the CRAG model and tried to impose it, it would lose its grassroots drive. The Hereford group has actually had discussions with Herefordshire County Council about doing this.

However, the suggestion was made that local and national Government could support community energy champions, in the form of a CRAG outreach person who can go into the community, deliver the message about carbon reduction and give practical advice. Apart from that, there was a general message that national and local Government (and business) could do more to put in place infrastructure that makes carbon reduction easier.

3.2 CRed – Simon Gerrard, CRed Project Manager

3.2.1 Current status

CRed is based at the University of East Anglia and arose out of the concerns of climate scientists working there that although the science of climate change was getting stronger, there was little visible action on carbon emissions. CRed started in 2003 and is planned to run until 2025. It was initially aimed at the local community and has grown to include seven communities within the UK and communities in the US and Japan, with plans to expand into other countries.

CRed's aim is to help organisations and individuals reduce their CO₂ by 60% by 2025. It does this first through awareness raising, and then once the individual/ organisation has decided to act and signs up, it puts them in touch with people and organisations that can help them. It also evaluates how they are getting on, in order to build up a knowledge base of the pathways that people are taking to reduce their carbon emissions, what they find easy and what they find difficult. This can be fed back to decision-makers to influence policy.

CRed is based on a 'hub and spoke' system. The hub based at the university collates information that comes in from different CRed communities and also provides resources for each of the communities, including the main website. It also provides a central CRed group for people who want to take part but do not live in an area which has a local CRed. The local groups market CRed in their area, encouraging people to sign up and keeping them engaged. Each CRed community has an administrator who can use the database of participants as a customer relationship management tool, for example, for sending out news bulletins, or reminding people about their pledges.

Each local group is run independently and so the way they function varies between groups. They tend to be a group of organisations, often led by the local authority, that wants to engage local people about climate change and decides to use CRed as the way to do that. For example, the Chester CRed has been funded by local businesses, is based in the local council offices, and also involves Chester University.

CRed works on the basis of 'pathways' of carbon reduction. When an individual registers, they are given a choice of pledges around themes such as lighting, heating, appliances, and transport. For each theme the pledges are arranged in sequences, starting with easy actions and moving on to more complex ones. For each pledge, information is available with advice and links if appropriate. After signing up to a pledge, the individual receives a reminder and suggestions for moving on. This is the most in-depth pledge-based system that was encountered during this research.

At the time of writing in June 2007, 51,420 pledges had been made, saving an estimated 39,914 tonnes of carbon per annum. To calculate the saving, a 'success factor' is applied to each type of pledge, to allow for the fact that not everyone will complete the pledge. These factors are based on results of evaluations with participants.

Although a fairly detailed carbon calculator is available on the website, CRed is less interested in calculating its participants' current carbon footprint than quantifying the reductions that they achieve through the pledges, while its priority is learning more about the pathways that individuals take towards carbon reduction.

3.2.2 Experience to date

CRed carries out regular evaluations through mailings to participants. The first major evaluation in 2005 found that the average CRed member was saving around half a tonne of carbon, and this has now grown to around a tonne.

The evaluations are used to collect data on participants such as social demographics, attitudes to the environment and climate change, what motivates them, and what barriers have they faced. This helps CRed to understand more about the kinds of pathways that people can take to reduce their carbon emissions.

3.2.3 Future plans

Further CRed communities in the US will be starting up during the summer and CRed is also has activities with universities in China, although it has not yet been decided whether a pledge-based system will be used there.

Plans for the future are based around expanding the CRed communities, linking them up, and expanding the range of pledges, in particular as new technology becomes available (for example, moving from compact fluorescent lamps to LED lighting). In particular, linking the communities is considered important, so that the members are aware that they are part of a larger, international community of people who want to reduce their emissions. Linking the communities lets them see that others in their country and abroad are also doing something.

The inclusion of carbon trading in the programme has not been ruled out, but perhaps much further in the future. The project estimates that a minority of the CRed users might use a web-based trading tool if one was available.

3.3 Going Carbon Neutral Riverside – Shaun Rand, Chairman

3.3.1 Current status

The project was established through an initial public meeting, where a group of 60 volunteers was recruited. Out of these, there is a core group of around 12 people. There are no paid members of staff and the group is currently constituted as a voluntary group. An initial survey was carried out in the first half of 2007. This was designed with the input of MSc students from Strathclyde University, who took the project on as part of their studies. Volunteers allowed their houses to be surveyed by the students, giving a picture of energy use in a variety of housing types, and the students used this data and information about the distribution of different housing types in Riverside to model the total energy demand and CO₂ emissions from housing. The study estimated that Riverside's carbon footprint was around 6,500 tonnes per annum, or 4.3 tonnes per person.

In addition, a survey was delivered to all households in Riverside, covering household energy use, travel, and aviation, and including questions about whether households would be interested in installing subsidised insulation. The response rate was around 5%, and so this could not be used to put together a community carbon footprint which could be compared with the results of the housing study. However, those people who returned survey forms were sent personalised letters giving them a breakdown of their household emissions, and it is hoped that this information will be more effective than simply telling people to reduce their energy use. The survey has also provided a picture of the number of people who are interested in subsidised energy efficiency measures.

3.3.2 Experience to date

The project has only been running for eight months at the time of writing, and the project chairman was happy with progress, considering that everyone working on the project was a volunteer. The project team was slightly disappointed with the response rate for the survey, and it was thought that if the resources had been available (in the shape of more volunteer time) to knock on doors instead of posting it through letter boxes, the response rate would have been better.

3.3.3 Future plans

Ideally the project team would like to do a footprint survey every year. They also plan to constitute the organisation as a charity. When asked what would be needed to make the project work better, the response was more volunteers or more volunteer time.

At present the project leaders are investigating ways of getting subsidised energy efficiency measures into households, in conjunction with Stirling Council. A renewable energy feasibility study will also be carried out in Riverside in the near future, dependent on funding.

It has been decided that for the present reduction targets will not be set, but the project will first concentrate on engaging people.

3.4 Manchester is my Planet – Leila O’Sullivan, Pledge Coordinator

3.4.1 Current status

The Manchester is my Planet (MIMP) project has several elements, which can be divided into projects with local authorities and other organisations (for example, community renewables projects) and the pledge campaign, which is public-facing. As the latter is the main route to engaging individuals, it is the only part of Manchester is my Planet that is covered here.

The pledge campaign aims to raise awareness with individuals across Greater Manchester. It has been running since August 2005 and has funding until March 2008. The initial idea was to show that there was an appetite among people in Greater Manchester to take action on climate change, and beyond that, to build up a community of ‘pledgers’ with whom the project would keep in touch and give guidance on how to reduce their emissions.

Individuals sign up to a pledge which reads, ‘I pledge to play my part in reducing this city’s greenhouse gas emissions by 20 per cent by 2010, to help the UK meet its international commitment on climate change’. There are no specific pledges on individual actions, but pledgers are sent information about how they can reduce their emissions, and receive newsletters with news and information – for example publicising EEC measures. The newsletter mailing list currently includes around 16,000 people.

Emissions reductions from pledgers are calculated by assuming that all pledgers will reduce their emissions by 20%, from a baseline of 11 tonnes per household, and that each pledger is from a different household.

3.4.2 Experience to date

The pledge campaign has engaged people through going out to the public, having stalls at events such as Manchester Pride and sporting events. At present paid temporary staff are used for these events but it is hoped that in the future it will be possible to engage pledgers further so that they can volunteer to work on stalls at events.

The project has a wide network of supporting organisations, and people have also been engaged in the pledge campaign by sending emails to the people in these organisations, allowing them to click on a link to the website and sign up immediately. In addition, MIMP carried out a survey on attitudes to climate change via the Manchester Evening News, with a link from the survey to the pledge website, which boosted the number of pledges.

To date there has not been enough resource to follow up pledgers to see how they are getting on with their pledge. At the time of the interview, a new website was about to be launched, along with a clean database that would collect enough data to be able to follow up pledgers more easily (at present sign-ups are a mixture of online and paper forms).

The pledge campaign is funded by Defra’s Climate Challenge fund, and as such was advised not to introduce carbon footprinting to the campaign; the rationale being to get as many people as possible engaged with the idea of doing something about climate change before moving on to take more involved behavioural change actions. In time, the pledge campaign manager would like to include Defra’s new carbon calculator on the website.

The disadvantages to working with a community the size of Greater Manchester are that even though some pledgers may be very environmentally aware, the campaign has to start from a baseline of

assuming that the subject is fairly new to most of the pledgers. The size of the area covered means that it is hard to tackle communities within that – for example, if the project decided to target schools, it would have to work with all the schools in all 10 local authority areas, rather than just concentrating on a specific area.

The evaluation of the project, as a Climate Challenge project, will focus on an increase in awareness of climate change as the main output, rather than behavioural change.

3.4.3 Future plans

Future plans include doing more with the MIMP support network of local authorities, universities, and local businesses. The campaign is moving towards having individual local authority branding ('Rochdale is my Planet' etc), so it is hoped that promotion by the individual local authorities will bring in more pledges.

Things that would be required in order to do more, or do better, include more resources to be able to follow up pledgers, and further cooperation with the supporting network.

Manchester is my Planet will be participating in some of the research that RSA Carbon Limited will be carrying out. In terms of the pledge project's audience, carbon footprinting and personal carbon trading have not been covered, but a subsection of the audience will be introduced to these through the RSA research.

3.5 RSA Carbon Limited – Matt Prescott, Director

3.5.1 Current status

RSA Carbon Limited started in January 2006 and is due to end in December 2008. It is a project which aims to explore personal carbon trading as a policy option, and its focus is on assessing the viability of personal carbon trading, rather than lobbying in favour of it. Most of the project consists of research into various aspects of carbon trading, such as looking at various policies, economic impacts, and prototype structures. Some of this research is being done in partnership with Green Alliance. This research is at an early stage and the results are not yet available.

Some of the research will involve workshops with individuals and eventually trial groups, but at present the part of the project which aims to engage individuals in the idea of personal carbon trading is the website, which includes a mocked-up version of a personal carbon trading system, 'Carbon Daq'.

3.5.2 Experience to date

Carbon Daq has received both positive and negative feedback; positive for attempting to introduce and explain the idea of personal carbon trading, and negative because it does not have as enough functionality to make it a useable personal carbon trading trial - rather unfairly, as this was not the intention. The intention behind Carbon Daq was simply to illustrate personal carbon trading in an interactive way, rather than to be a fully functioning online trial of personal carbon trading. It has become much more popular than originally expected. A 'mark II' of Carbon Daq is currently in development, and this will have more functionality, although it is expected that only the individuals involved in small trial groups formed as part of the wider research remit of the project will be able to use it to actually trade. The new version of Carbon Daq will use figures from the new Defra carbon calculator, as opposed to the Climate Care figures it uses now.

3.5.3 Future plans

RSA Carbon Limited have a wide range of ideas for future activities, though many of these are still to be planned in detail. Research with communities, leading to trials of personal carbon trading, is planned but the final format has still to be worked up. This will be taking place in Cardiff, Manchester (in partnership with Manchester is My Planet), and potentially other areas. In Cardiff work will initially look at case studies of households, exploring their behaviours and the institutions that could support them under a personal carbon trading system. In Manchester, it will focus on deliberative fora, giving residents a 'walk-through' of how a personal carbon trading system might work and asking how they would prefer a scheme to be designed. Once workshops participants have been engaged, the intention is to involve some of them in trials of carbon trading. RSA Carbon Limited has also been involved in planning a trial of personal carbon trading as part of the Echo Action project (see section 2.12).

The US version of RSA Carbon Limited will be launched towards the end of 2007.

4 Conclusions

This snapshot reveals that community-based initiatives using carbon footprinting and trading to engage people with reducing their carbon emissions are rather less well developed than some of the 'hype' that surrounds either them as particular programmes or the issue in general.

The majority of initiatives reviewed for this study have not considered the use of personal carbon trading. The exceptions are the RSA, Manchester is My Planet, Echo Action, CRed, CRAGs and Carbon Neutral Riverside. Yet these exceptions have relatively under-developed plans for this or remain unsure of its value to their initiative, particularly in terms of wider engagement.

The RSA project was specifically established to research the viability of personal carbon trading. However, its current focus is on exploring personal carbon trading in a purely theoretical way, although practical trials of some kind are planned for the future. Its website includes an interactive explanation of how trading might work, but this does not currently have the functionality to actually allow trading between participants.

Manchester is My Planet will be participating in the research and trials that RSA Carbon Limited proposes it will be carrying out in Manchester.

The London part of the European project Echo Action is hoping to trial personal carbon trading within one of its groups, pending funding. The RSA has also had input into this work.

CRed is categorised here as considering trading as a possibility for the future. This is based on an interview with the project manager in which he was specifically asked if it was possible that trading would be included in the project in the future. As it was not possible to ask all 24 initiatives the same question, it is possible that some, despite not mentioning trading on their website, would also answer the question the same way. However, it is worth bearing in mind that CRed is scheduled to run until 2025 and so has a much longer time horizon than most initiatives.

CRAGs have discussed the use of personal carbon trading. As a network of informal groups it does not have a formal position on trading, but information from the interview with a member of one of the groups suggests that CRAGs in general would not want to use trading either between or within groups because they are all keen carbon-reducers and want the reduction that they personally have achieved to be absolute, rather than passed to another person as a right to emit. However there is some discussion about trading on the CRAG website, for example in relation to widening participation beyond the 'diehard greens'.

Carbon Neutral Riverside mentions the possibility of trading in the future on its website. However, an interview with the project chairman revealed that the project has been running for a short time and at present the focus is on engaging people, without setting reduction targets in case targets discourage people. It is reasonable to assume that it will be a while before trading could be introduced to the project, but it is interesting that it is on the radar of the project at an early stage.

There is a large number of initiatives in existence in the UK that are aiming to engage individuals in carbon reduction through communities, either within existing communities or by creating a community of people who have come together specifically to tackle carbon reduction. Although there is less trading happening than expected, many of these initiatives could conceivably incorporate personal carbon trading. Many of the initiatives reviewed have sprung up in the last year and are still establishing themselves, so it would be premature to conclude that because they are not yet trading, it will not happen at all.

In terms of what these initiatives would need in order to do more or better, the interviewees did not immediately think of an answer that involved government intervention. Answers were focused on what was immediately within the initiatives' power, such as recruiting more volunteers and devolving work to partners.

This suggests that these initiatives are just 'getting on with it' without expecting anything from government. Indeed, some of them are driven by a strong sense that they have to get on with it because the government never will!

When pushed on potential inputs from government, one suggestion was funding for an outreach person to spread the word in the community. Another suggestion from the same person was a general request for an infrastructure and market conditions that were more conducive to carbon reduction. The need for funding was also mentioned; one initiative would have liked more funding to follow up participants' pledges while another (not one of the five interviewed) would have liked more funding to make it easier to put its ideas into practice.

Concluding comment

We found less engagement amongst these community initiatives with the concept of personal carbon trading than we had anticipated from the mixture of anecdote, rumour and hype that has settled around the issue in the last year.

Interestingly, some groups most actively focused on achieving targeted reductions in personal carbon emissions (CRAGs) appear to be suspicious of the notion of 'trading in' the carbon benefits they had achieved so that someone else could 'do less'. This is understandable within a small group of dedicated activists seeking to reduce their contribution to the threat of climate change (since trading potentially dilutes the contribution they are making as individuals).

Some of the regional and national programmes which were involved (or considering becoming involved) in personal carbon trading did not appear to have thought through the full implications of running trials outside an effective transaction system. This is concerning bearing in mind their stated intentions to 'proceed with trials', running the risk of trials being ill-conceived and thereby stimulating reactions to something other than the core concept of carbon trading.

This state of affairs is understandable. If the concept of personal carbon trading is a relatively new one, the practical application of it in a community group setting is an even newer one. It is also a complex one to implement meaningfully and serviceably (in the sense that people will be able to participate easily).

Many of the issues which any community-based trading initiative would need to consider are not immediately obvious and certainly not easy to resolve [what baseline to use; whether children get full or partial allowances; whether households can pool their allowances; what the reduction target – or cap – should be over time; how to record carbon emissions over time (since this will not be happening in the trial within the energy/fuel transaction system); how frequently to allocate and reconcile credits; how to determine a carbon price; whether to allow banking, forward buying, gifting; etc].

If the objective of trials is to test the reactions of individuals and communities to the concept of personal carbon trading – and the extent to which it engages people more effectively with reducing their own carbon emissions – then it is important that the trials present and operate that concept effectively. Otherwise there is a danger of groups trying out something which is flawed in its execution

but which nevertheless brands the concept as unpopular or unworkable or both (or the opposite with a similar lack of robust evidence).

On this basis, we conclude that it would be unhelpful for the Government to fund or encourage a wide range of trials of individual carbon trading until it has first established and codified into guidance (and potentially useable web-based tools) a workable and easy-to-use scheme.

In this respect, there are many parallels to draw with the lesson which Defra has recently applied on the need to create a standardised approach to carbon footprinting (which was welcomed by several interviewees); there would be merit this time in not waiting until it was clear that there was a confusing array of approaches to carbon trading available 'in the market'.

If a workable, standardised and easy-to-use personal carbon trading scheme and tools were developed for use in trials, we believe there would be extensive interest amongst community initiatives (and other organisations and institutions) in using such a scheme to engage people to stimulate interest and action on their own carbon emissions.

Recommendations

On the basis of the findings of this study and the analysis outlined above, we recommend that Defra:

- Develops and maintains a database of initiatives (led by community, local authority or business organisations) which are exploring with households and individuals the concept of carbon budgeting and 'living within an allowance'.
- Repeats this snapshot exercise in one year's time.
- Urgently produces guidance for groups on the issues associated with developing individual carbon budgeting and carbon trading initiatives and how they might be addressed on a systematic and reasonably consistent basis.
- Commissions a standardized and easy-to-use web-based personal carbon trading tool which:
 - (a) enables groups to organise their own schemes according to their own agreed approach to the issues such as cap setting, allowance baselines, reduction targets, and allocation;
 - (b) captures carbon profiles of participants for research purposes, and;
 - (c) provides the opportunity to track how individuals are responding and trading over time

These recommendations would enable Defra to establish and maintain a leadership role in the field and ensure that there was greater intellectual coherence and technical consistency to future voluntary approaches to, and experiments with, individual carbon budgeting and trading.

Appendix: Questions used to guide telephone interviews

- How does [the initiative] work?
- What are you hoping to achieve?
- How long has the group been in existence?
- What is the status of the group (charity, sub group of parish council, informal group, etc)?
[Find out before interview and just check it is correct.]
- Is it ongoing or does it have a fixed end date?
- When did it start?
- How did it come about?

For groups:

- How many members are there?
- What community / geographical area are they drawn from?

For initiatives covering a whole town or village:

- What is the population of the town / village?
- How many are actively / regularly involved? (e.g. how many have pledged, how many have done energy audits, etc)

For pledge-based projects:

- What are the advantages and disadvantages to working with a community of the scale of (eg Manchester)

For all:

- How do you engage new people?
 - How actively? (promotion through leaflets, press, etc, vs word of mouth)
 - Is this working?
 - What has worked best?
 - How do you plan to engage new people in the future?
- Has the group (of regular participants) grown or shrunk since it started? By how much?
- Is the initiative part of a wider community or does it see itself as self-sufficient?

Footprinting/measuring/targets/trading

- Are you measuring the carbon footprint of individuals?
- Are you measuring the collective footprint of the group / village?
- What do you measure?
 - Home energy use and / or travel, and / or other
- How do you measure it?
 - Carbon calculator or other tools?
 - If used, where did you get emissions factors from (DTI, carbon trust, etc?)
 - How do you deal with households / children, etc?
 - If covering a whole town / village, how do you fill gaps from those who don't want to take part?
- Who is in charge of measurement and monitoring?
 - Do individuals do their own accounting?
 - Do they need to show bills, etc?
- How frequent is monitoring?
- (If the initiative is based on pledges) Do you follow up pledges or assume people have completed them?
- Do you have targets?
 - For individuals / village / organisation / other

- Are there any rewards or penalties for reaching (or coming in under) this target? How are they set? How is the penalty money used?
- Will the target change over time?
- Do people generally meet their targets?
- Is there trading? Are there plans to trade in the future?
- Do people drop out? Why?
- How have the participants found the process, in general?
- Was the process designed by the participants or was its form decided on in advance?
- How often do you meet?
 - Do you use IT to communicate instead of meeting?
- How are you evaluating the success of the initiative?
- (How would you like to evaluate it if you had the resources?)

Improvements

- What would you need to make it work better?
- If funding, what for?
- Would you use a web-based footprinting and trading tool that let you establish a group and set your own rules?
- If you were starting again, would you do anything differently?
- What is planned for the future of the initiative?
- [What are you doing with the data you collect on public participation?]