

Groundwork UK Learning Partnership

Communities Living Sustainably

Learning Report: Climate Change



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1.0 Executive Summary

This report draws out learning from the Communities Living Sustainably (CLS) programme up to June 2014 and is based on telephone interviews with the twelve CLS projects. It looks specifically at activities related to climate change and aims to highlight key issues and experience from the CLS projects as well as reviewing the range of differing activities.

Key Findings

The majority of CLS project activity is focused on mitigation activity, most commonly through food growing and energy reduction projects. Projects are finding practical mitigation activities a more tangible way to present climate change to their community and an effective way to involve local people in project activity. Climate change can be addressed through mitigation (to reduce greenhouse gas emissions) or adaptation (to reduce the vulnerability of social and biological systems to climate change effects).

There are some good examples of climate change adaptation project activity emerging from the programme. Four case studies are identified in this report: Sustain Eden's approach to community resilience planning, Sustainable Sheppey's approach to community adaptation planning, CLS in Dorset work to involve the community in resilience planning and One Planet Middlesbrough's actions to fit water efficient fittings in 225 homes to manage sewer flood risk. There is currently a lack of visible evidence of community led adaptation activity in the UK and these emerging examples from the CLS programme will provide valuable models for future activity.

There is also evidence that CLS funding is enabling projects to engage with influencing climate change adaptation priorities locally, again in relation to flooding. Projects have built their profile and strategic contacts over the first year of delivery and are now engaged with decision makers to influence location of flood defences and flood basins and extreme weather resilience plans.

Climate Change mitigation actions could be further developed by projects to support a transformational change of the local economy. A number of projects are seeking to develop their activities into economic opportunities, which can improve the social and economic condition of the local area. To be classed as transformational change, these activities would need to be developed in a way that seeks to change the way the local economy operates, for example by applying the circular economy concept. A number of activities do contain the seeds of this bigger change. Manor House PACT is a good example of a project embracing the concept of the circular economy at a micro level.

Practical and intensive approaches are effective ways to engage vulnerable and harder to engage groups in taking action. CLS Projects have identified three groups of people vulnerable to climate change in their communities: people whose livelihoods are at risk, people who lack resources or particular groups that face social isolation, such as older people, single mothers and non-English speakers. Across these groups, projects have found that direct, intensive engagement is far more effective than larger awareness events on climate change. Projects have found that initiating a dialogue in this way can be very resource intensive; however it provides greater insight into individuals' priorities and helps to identify appropriate forms of support.

Developing project monitoring and evaluation plans which capture the impact of project activities in relation to the wider context of making a community more sustainable is challenging. Interviews conducted for the purpose of this report highlighted that the communities have yet to put in place evaluation frameworks to evidence the impact of their projects, meaning there is insufficient evidence at this stage to draw conclusions on how effectively these plans will evidence impact on climate change. Nine of the twelve CLS projects are accessing technical support to develop these plans, either through university partners or commissioned consultants. There is an important role for these technical evaluation partners to enable projects to link their project's mitigation and adaptation impact to the wider area context of adapting to climate change.

Having partners with strategic influence and technical skills is key to progressing climate change adaptation activities within communities. Climate Change adaptation measures are generally part of long term, strategic investment plans requiring large capital resources and because of this, have historically been managed by statutory agencies. It is generally recognised that climate change adaptation is not as straightforward to plan or deliver as mitigation. Community projects therefore cannot deliver adaptation measures alone, and require statutory agency support. It is those CLS projects with strong statutory partnerships working together, and in areas which are facing an immediate risk of flooding, that are making early progress in implementing climate change adaptation measures.

Recommendations

This report makes a number of recommendations; for the CLS Learning Partnership, for funding organisations including the Big Lottery Fund and for stakeholders interested in climate change, including national and local government. These are summarised below:

- *Understanding Change & Impact*
 - To increase the scale of impact of climate change adaptation activities, community projects and local authorities should be encouraged to increase the level of integration between community-led activities and statutory activities in this area.
 - Community led climate change mitigation actions could be further developed to support a transformational change in the local economy. Support to do so could be offered to CLS projects through the Groundwork UK learning Partnership test and stretch support function.
 - The impact of project activities should be understood in relation to the extent they support communities to be more sustainable. The Groundwork UK Learning Partnership will engage with academic partners working on project evaluation and help them to understand this wider context within which their evaluation works sits.
- *Learning how communities learn about sustainability:*
 - CLS projects are finding individual, tailored messages from trusted local grass root organisations and local 'community champions' to be effective in engaging vulnerable and harder to engage communities to take action. Community projects working to encourage their community to be more sustainable and resilient should deliver these messages through an intensive personal approach using local people and organisations.
 - There is a need to provide practical examples of community led climate change adaptation projects within the UK. The Groundwork UK Learning Partnership will investigate examples of these and share to provide inspiration to CLS projects and communities across the UK.
- *Supporting Peer to Peer Learning:*
 - CLS projects have developed useful tools and materials as part of their work to address climate change. They should be encouraged to share these amongst both CLS and other community climate change projects.
 - Existing CLS networks themed around Energy and Growing and Green Space should be used to foster greater understanding of the potential of project activities to support climate change mitigation and adaptation.
- *Informing The Big Lottery Fund's decision making:*
 - Technical support is required by community groups to develop Monitoring and Evaluation frameworks. Enabling projects to access academic partners is an important element of the CLS programme design that should be retained in future programmes.
 - Funders could use criteria and assessment procedures to promote future climate change adaptation activity delivered in partnership between communities and statutory bodies.

- *Disseminating learning to wider stakeholders:*
 - The benefits of community involvement in climate change projects should be publicised to strategic stakeholders to encourage future joined up delivery approaches.
 - CLS examples of economic community led activity should be shared with Department of Communities and Local Government who are currently exploring ways to promote community economic development.
 - Examples emerging from the CLS programme should be used to provide an evidence base for how communities can tackle climate change mitigation by linking up with work The Joseph Rowntree Foundation are currently carrying out on this.

2.0 Introduction

This report draws out learning from the Big Lottery Fund's Communities Living Sustainably (CLS) programme up to June 2014. It focuses on activities related to climate change adaptation and highlights key issues and experiences from the CLS projects. A key learning question for this review was the extent to which CLS projects are engaging in adaptation measures (to reduce the vulnerability of social and biological systems to climate change effects), alongside climate change mitigation measures (to reduce green house gas emissions). The distinction is important as it shapes the design of the project and the partnerships needed to effect change.

It draws out learning to inform and influence funding organisations such as the Big Lottery Fund, local and national government as well as community based organisations involved in climate change adaptation and mitigation activities.

This report is based on telephone interviews with all the CLS projects carrying out activities related to climate change. The interviews were planned using background information on these activities under CLS, gathered by Groundwork. Research to inform this report was carried out by the Building Research Establishment (BRE) Ltd and the New Economics Foundation (NEF).

The Groundwork UK Learning Partnership will produce quarterly reports capturing the learning emerging from CLS projects. The reports will focus on three key themes, Energy, Growing and Green Space and Climate Change. Previous reports have focused on Energy and Growing and Green Space and can be found at www.communitieslivingsustainably.org.uk

About Communities Living Sustainably

Communities Living Sustainably (CLS) is a £12 million programme funded by the Big Lottery Fund. Twelve communities in England have received funding to help deal with the potential impact of climate change and build the sustainability and resilience of their local community. The programme will run for five years, with these communities providing inspiration to other communities across England and sharing what they have learned with each other. A full list of these projects can be found in Appendix 2 and a map showing their location can be found in Appendix 3.

The Groundwork UK Learning Partnership is made up of five organisations each with expertise in tackling climate change and helping communities to live more sustainably. The partnership comprises Groundwork UK, the Energy Saving Trust, the Federation of City Farms and Gardens, the New Economics Foundation and Building Research Establishment (BRE).

This partnership has been brought together to encourage and support the funded local communities to capture and share any lessons from their projects. A learning network has been established to encourage peer learning between communities, to better understand how communities can successfully live and work in a sustainable way and to provide information to inform and influence policy and practice both within the CLS programme and within the wider sustainability arena.

3.0 Context

The UK Climate Change Act (2008) sets out a legislative framework for all mitigation¹ and adaptation² activities which underpinned the publication of the UK Climate Change Risk Assessment (2012)³, and the implementation of the National Adaptation Programme (2013)⁴. The National Adaptation Programme (NAP) targets five thematic areas: buildings and infrastructure, health and wellbeing, businesses, natural environment, agriculture and forestry. The objectives of the programme are to raise awareness, build resilience, implement actions that require a long-lead in time and address evidence gaps.

The importance of community level action is recognised within the NAP in the context of local flood risk management, involvement in developing local plans, and importantly being the appropriate scale to determine effective solutions to support vulnerable groups to adapt to climate change. This is framed however within a wider understanding of the need to integrate action at various scales to effectively address climate change (Global, EU, national, local government, city, business and communities).

The Big Lottery's Communities Living Sustainably (CLS), the Environment Agency's Climate Just⁵ and Climate Ready⁶ programmes are the three initiatives referenced in the National Adaptation Programme 2013 as examples of projects supporting vulnerable groups to adapt to climate change.

Community-led initiatives across the UK for the most part focus on local scale mitigation activity, employing a variety of approaches (awareness raising, renewable energy generation / efficiency, food growing), which generally do not specifically target the most vulnerable groups. Examples include the village of Ashton Hayes journey to be carbon neutral⁷, the Bristol Green Doors energy efficiency open homes⁸, and the Transition Town Network with its focus on reducing reliance on fossil fuels⁹.

Adaptation v Mitigation

This review is particularly exploring the extent to which CLS project activity is focused on adaptation or mitigation measures in responding to climate change. The distinction between these measures is important as it affects the design and delivery of projects, but importantly guides the extent to which wider partnerships need to be in place to deliver the scale of activity required if the CLS projects are to have the desired impact. In application however it is easy to blur the distinction between these two sets of activities.

In this review, the climate change adaptation categories proposed by Brooks et al (2011) , are used in Table 1 below to clarify the scope of the activities carried out by the CLS projects in relation to climate change. These activities include improving the ability to cope with current climate variability (resilience building), investments to address incremental changes in existing risks (climate proofing) and activity which transforms existing systems and reduces their reliance on resources threatened by climate change (transformational change). Mirroring other UK community-led activities, the majority of CLS activity is focused on climate proofing activity. However, 5 of the 12 projects are involved in resilience building activity as demonstrated in Table 1.



Table 1: Communities Living Sustainably (CLS) Climate Change Adaptation activities

Category of adaptation ¹⁰	Type of action	CLS project examples
Addressing the adaptation deficit	Resilience building	<p>5 of the 12 projects are involved in resilience building action e.g.</p> <ul style="list-style-type: none"> • Community-led adaptation action plans for addressing climate change • Community emergency risk management plans • Linking people to early warning flood alerts
Adapting to incremental changes	Climate proofing	<p>All of the CLS projects are involved in climate proofing activity e.g.</p> <ul style="list-style-type: none"> • Addressing fuel poverty through refurbishment and renewables • Improvement of local green infrastructure through growing activity • Water efficiency programmes
Adapting to qualitative changes	Transformational long term changes	<p>There is less evidence of this type of action within the CLS projects. Two examples were highlighted in this review:</p> <ul style="list-style-type: none"> • Micro-circular economies (e.g. a local food supply chain with waste re-use) • Actions arising from Farming and Fishing adaptation plans in Dorset.

Climate Change Risks

The UN's Inter-Governmental Panel on Climate Change (IPCC)¹¹ second report on Climate Change in 2014 identified three main risk areas for Europe: economic losses from flooding, extreme heat events and a reduction in water availability. These are detailed below.

- **Flooding**

More than 5 million properties are at risk of flooding in England, representing almost 1 in 6 homes¹². Across the CLS projects, adaptation to flooding has been an issue that projects have been either working on directly, or is referred to as a tangible example to illustrate the impact of climate change when delivering climate change awareness activities within communities.

The National Resilience Capabilities Programme¹³ aims to build resilience within communities via Local Resilience Forums. These are formal groups made up of local public services. National programmes to support climate change resilience tend to focus primarily on the provision of web-based information platforms providing access to guidance materials. The Forums work to increase awareness of climate impacts in the local area, and provide practical tools for implementing emergency responses¹⁴. Emergency planning is an area of work a number of CLS projects have been involved in, which is explored later in this report.

- **Heat waves and cold snaps**

Older people, particularly those over 75 years of age, are the group that is most vulnerable to extreme heat and heat related deaths. Cold-snaps and their associated health impacts are expected to continue to occur, although cold-related deaths are projected to decline¹⁵. There is no targeted activity in CLS projects to address these risks.

The 'Heat wave Plan' developed via the NAP for England aims to target the most susceptible groups in communities. The Met Office's 'Get Ready for Winter programme' provides information to help communities to prepare for severe weather events¹⁶ and to aid the organisations that can support them to take part in emergency preparedness activities. A joined-up approach between local health services and community groups helps support vulnerable groups to prepare for these weather conditions. For example, The Irwell Valley Sustainable Communities Project in Salford is using intermediaries such as Salford Council's Adult Social Care and Social Services to identify vulnerable people. A number of CLS projects are involved in low cost energy efficiency measures such as installing draught proofing measures targeted at older people (CLS in Dorset, Green Prosperity Hull, Manor House PACT, Sustain Eden) which opens up opportunities to co-ordinate support with local services.

- **Water availability and food security**

A decrease in water availability will impact on drinking water supply and the security of food supply, the fundamental commodities for existence. A number of the CLS funded projects are working with water supply companies to install water efficient fittings and water meters. Complex global food supply chains mean that a reduction in the water supply internationally will impact upon the food supply in the UK. A recent report by a leading UK retailer highlighted that 95% of the fresh produce sold by the supermarket is at risk from climate change¹⁷. Each community funded by the CLS programme is engaged in local food growing and supply activities.

Measuring resilience

Resilience building, climate proofing and transformational longer term responses to climate change involve a range of actions from physical infrastructure development to more systemic measures which reflect the local context. The impact of each of these is likely to be evidenced at different timescales and can only be understood through a monitoring and evaluation (M&E) framework which connects with a wider, more strategic view of a place.

At the national level, the National Adaptation Programme acknowledged the need to develop a national monitoring and evaluation framework which helps to measure the impact of various adaptation programmes. However, the fact that local authorities and other public bodies no longer have to report on statutory mitigation indicators such as “Per capita reduction in CO₂”(formerly NI 186) not only makes it difficult to assess national progress on climate change mitigation, but also removes a policy driver which would support community- level action.

Programmes such as the ‘Climate Ready Support Service’, led by the Environment Agency, and ‘Climate Local’¹⁸ are key sources available for voluntary organisations and communities to prepare for the effects of climate change. There are a number of guides and tools available to identify risks and plan actions e.g. ‘Adaptation Wizard’¹⁹. The Climate Ready Programme is also working with the National Council for Voluntary Organisations (NCVO) to provide guidance on adaptation, and signpost voluntary groups to tools and information. The ‘AdaptMe Toolkit’²⁰ provides support on developing monitoring and evaluation frameworks.

Climate adaptation and local economies

A key element in progressing change towards a more resilient community is the degree to which local economic development reduces negative or supports positive environmental impacts and also maximises local money flows. A local economy within which waste is treated as a valuable asset, and products are designed to be reused again and again (a circular economy) offers opportunities to link climate change mitigation activities to support the emergence of transformational longer term system changes i.e. a sustainable local economy.

Reflecting on how most products are manufactured to be used and disposed of, either by incineration or buried in landfill, led architect William McDonough and chemist Michael Braungart to apply the concept of ‘cradle to cradle’ to design and manufacturing. They envision a closed-loop system where all materials, energy, waste and water are returned to the soil, or back into the manufacturing process with no harm or loss of quality. This contrasts with recycling, where many of the products made from recyclates are of a lower material quality than the original – what McDonough and Braungart term as downcycling. ‘Cradle to cradle’ is characterised by three principles derived from nature: Everything is a resource for something else: Use renewable energy: Celebrate diversity²¹.

CLS sits alongside a number of other programmes and activities aiming to identify the degree to which community-level environmental action can develop into enterprise or other economic activity that uses the principle of the circular economy to address the need for new jobs and improved prospects, particularly within disadvantaged areas.

3.0 Main findings

3.1 The majority of CLS project activity is focused on climate change mitigation rather than adaptation. Projects find this a more tangible way to present climate change to their community.

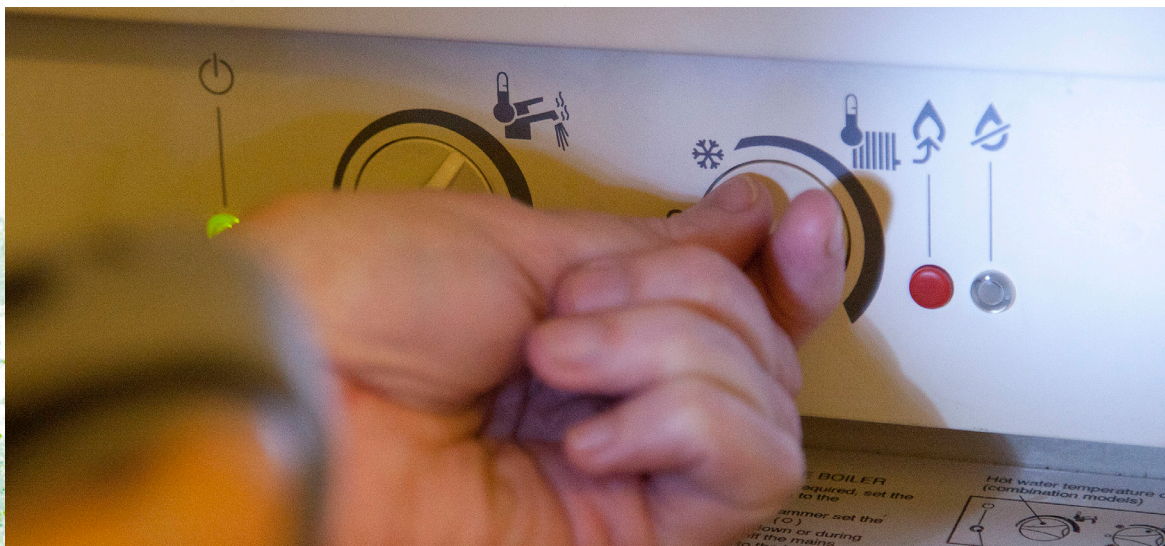
Communities that are the most vulnerable to climate change require physical measures to adapt to both the immediate impacts and to the longer term impacts of climate change. During a consultation process run by Sustainable Sheppey, their vulnerable coastal communities requested direct, tangible adaptation measures such as flood prevention measures (e.g. sea wall) and mitigation measures such as energy security (e.g. renewables). However, the majority of project activity across the CLS programme is focused on climate change mitigation activities - most commonly through food growing and energy reduction projects.

Generally, people consulted within the CLS projects were aware of climate change, particularly younger age groups, (for example, of the 800 people consulted as part of the Sustainable Sheppey programme, only a handful denied that the climate is changing). However they are generally unsure about what they can do to help the community to adapt to climate change, or if it is within their control to take action. As a result, the CLS projects are tending to focus on what is the tangible change for the community e.g. recent floods, fuel bills, food and fuel poverty.

One of the CLS projects attributes the bias of project activity to the difficulty of translating climate change adaptation into actions compared to climate mitigation activities.

“..even in conversations about adaptation and what it means, people will revert to talking in terms of cutting carbon emissions, energy efficiency measures etc, and find it more difficult to imagine what they could do to adapt. I think the root of this barrier is that understanding the case for adaptation requires an understanding of the risks climate change presents at a personal/community level which opens up a greater possible range of responses to those risks. To oversimplify things: the argument for, and impact of, installing solar panels is easier to understand than preparing your community to deal with drought or flooding.”

This also affects how the CLS projects are talking to people in their communities about climate change. For example Greening Wingrove in Newcastle is focusing on engaging people in activity, and expect to be able to make a more explicit link to climate change in how they talk about the project by years 2 -3. Raising the profile of the importance of climate change adaptation nationally and providing examples of community led activity in this areas, was felt by a number of the CLS projects as a key way to increase understanding of the need for local action.



3.2 There are some good examples of climate change adaptation project activity. These are focused on the production of community emergency response plans to flooding.

Flood resilience and adaptation, and extreme weather resilience are the two most common climate change adaptation risks faced by the CLS projects. Communities in high flood risk areas are more aware of the risks from climate change, have strategic partners who treat this issue as a priority and are proactive in ensuring vulnerable groups are protected in the community.

Four case study examples are presented in this section - Sustain Eden, One Planet Middlesbrough, Sustain Sheppey, and Dorset. Each of these communities is located in high flood risk areas which have recently experienced floods. This has served to increase public awareness on taking action to safeguard their community during extreme weather events. The scope of project activities were developed by the community, and support is provided by the local authorities and other partners (e.g. Northumbrian Water). All CLS projects which focussed on adaptation activities had partners with technical experience. These partnerships are key to the CLS projects success in implementing actions at the community level. To implement adaptation measures at a community scale local groups need the support of the local authority and statutory agencies (Fire & rescue, Environment Agency, local council) to ensure that efforts are joined-up across all parties.

Developing community emergency response plans is the main adaptation activity undertaken within the CLS communities. Other flood risk activities which require area wide strategic planning, or technical infrastructure improvement were led by local authorities or utility companies.

Case Study: Sustain Eden, Cumbria. The project is empowering local communities to build resilience to flooding and extremes of weather, by developing emergency response plans as well as working with voluntary organisations to ensure they can continue to operate their services during an emergency. The project benefitted from having informed partners, who had prior experience in developing emergency response plans for flooding. This meant that it was possible to develop a focussed community-led approach to managing flood risk in the project area. The plans were developed by linking local authority flood emergency response plans to community resilience activities, and required working with statutory agencies to develop a joined-up community plan. As a result of the project activities, partnerships have been built between community groups, local councils, emergency services and organisations such as the Environment Agency.

Case Study: Sustainable Sheppey. In the Isle of Sheppey, the CLS programme funded a project which was included as a strand of a larger climate change adaptation scheme Sustainable Sheppey run by Kent County Council. The focus of the project was to understand the risks perceived by the community as a result of climate change and resulted in the development of a 45-point action plan to address the concerns raised. The goals and the outcomes of the action plan are ambitious, and these are now being led by the parish council. The county council is looking to roll-out the methodology across other parishes.

Case study: One planet Middlesbrough. The project installed water efficient fittings across 225 homes to reduce stress on the sewage network in areas that are in a high risk category for flooding. Although installing water efficient fittings is a mitigation activity, the main driver for the partnership was managing sewer flood risk in the area.

Case study: CLS in Dorset. Emphasising a need for local adaptation responses, the project is working with Bridport Town Council to gather the community's views about how climate change could impact on them, and develop ideas on how the community can adapt to those impacts. The process has been initiated by holding a planning workshop which presented scenarios of how Bridport's climate could change by 2033. Outcomes of the workshop are being used to inform an emergency response plan for Bridport, and planning for future climate changes.

CLS communities are gaining a wider understanding of the existing policy gaps and learning lessons from implementing adaptation projects. For example, Sustain Eden found that an existing policy gap in ensuring regional emergency response plans and the local flood risk plans are complimentary to each other. The Sustain Eden project partners are also concerned that response plans continue beyond the life of the CLS project, and that the work does not depend on the key individuals involved in the planning process to date. There is currently a lack of visible evidence of community led climate change adaptation activity in the UK, with the majority of previous community action focused on mitigation. Discussions with projects highlighted the need to provide examples of this to help inspire communities to take action. The CLS programme is providing some emerging examples of good practice as outlined above.

Projects have developed websites with practical information, case studies, hand-outs, presentations and toolkits for engagement as part of either CLS or other programmes they have been involved in. The Sustain Eden project has developed a 10-step plan to use within communities to develop an emergency plan which is available as web-based information with a report on how to develop emergency response and recovery plans. A detailed case study looking at Sustain Eden's resilience planning activity and including a web link to the 10 step planning resource is included as Appendix 1.

3.3 Projects are engaged in influencing climate change adaptation approaches in their wider area.

There is some evidence that CLS funding is enabling projects to get further involved with climate change adaptation priorities locally. All examples to date are in relation to areas at risk of flooding. The community projects have built their profile and contacts over the past year and are now more engaged with decision makers in the area. This is enabling some projects to attempt to influence these local climate change adaptation approaches. These approaches are predominantly led by local authorities with involvement from strategic stakeholders including water companies. Involvement with and lobbying of these stakeholders to influence adaptation activity presents an opportunity for projects not delivering climate change adaptation activities to have an impact on the local adaptation agenda as well as the specific mitigation projects they are delivering.

Case study: Green Prosperity, Hull. Although not delivering any direct project activity to address flooding, the project is now involved in high level strategic discussions with ARUP and Hull City Council to influence future flood plans and defences in the area. The project is campaigning for Yorkshire Water to focus their flood mitigation work on East Yorkshire as well as West and is providing evidence of risk to demonstrate the need for this.

Case Study: L8 Living Sustainably, Liverpool. The NHS are the lead organisation for extreme weather resilience in Liverpool, developing emergency plans for those most at risk. The project has concerns that these plans are not specific enough to the risks facing the population of the L8 area. The project is planning to review the plans and engage with the NHS to determine the extent to which they can be adapted to encompass L8 needs more fully.

Case Study: Irwell Valley Sustainable Communities, Salford. The Environment Agency and the local council are intending to install a flood basin to the north of the project area in 2015. The project is now partnering with the Environment Agency to assist with the preliminary assessment work for this as well as engaging with the council to progress plans to install a wetland. The project attributes their involvement to the greater influence CLS funding has given them. 'The CLS funding has helped to position the Broughton Trust in this discussion in relation to the local authority. [We] have a louder voice over the last 5 months.'

3.4. Climate change mitigation actions could be further developed to support a transformational change of the local economy.

A number of projects are seeking to develop their activities into economic opportunities, which can improve the social and economic condition of the local area. For the most part these are related to climate change mitigation activities such as food growing (Real Food: Wythenshawe), energy generation (CLS in Dorset), starting green social enterprises (Sustainable Sunderland, Sustainable Harborough) and related business support services (Green Prosperity, Hull). Irwell Valley Communities Living Sustainably in Salford is one of the few projects to date to identify potential opportunities for jobs and apprenticeships from adaptation projects - specifically related to maintaining a planned flood basin (wetland) to the north of the community. The project is also currently in discussion with the Council about the use of six industrial units which could be used for up-cycling projects with the potential to develop a Community Interest Company.

Developing local economic opportunities is an area of activity that could be developed further within more projects. To be classed as transformational change, these activities would need to be developed in a way that seeks to change the way the local economy operates, for example by applying the circular economy concept. Although this seems like an ambition that might outstrip the resources or influence of CLS projects, a number of activities do contain the seeds of this bigger change. Manor House PACT is a good example of a project embracing the concept of the circular economy at a micro level.

Case Study: Manor House PACT, London. The Manor House PACT meals scheme in London is using the reduction of food waste to open up conversations about climate change. The project team identified 20 shops in the local area to provide 'unsold' food (closer to expiry) which otherwise would end up as food waste. The CLS programme funding helped to recruit three chefs to collect the food from the shops and make meals in local community centres with the help of volunteers. The community meals provide the platform for networking and to discuss general issues in the local area including climate change and the environment, and to establish partnerships to tackle some of the issues.

3.5 Practical, and intensive approaches are effective ways to engage vulnerable and 'harder to engage' groups in taking action.

CLS Projects have identified three groups of people vulnerable to climate change in their communities: people whose livelihoods are at risk (farming, sea fishing e.g. CLS in Dorset), people who do not have resources (low income e.g. Greening Wingrove, Newcastle), or particular groups that face social isolation (older people, single mothers, mothers who do not speak English across projects).

Across these groups, CLS projects have found that direct one-to-one engagement is far more effective than larger awareness events on climate change. Projects have found that initiating a dialogue in this way can be very resource intensive, however it provides greater insight into individuals' priorities and helps to identify appropriate forms of support. For example, Greening Wingrove in Newcastle has conducted 270 house call one-to-one sessions on vertical vegetable growing, and a key project design lesson has been the need to build in longer lead-in times to allow for time to take people on a journey from awareness to moving into action. CLS in Dorset has had to rethink how they engage with the farming community on developing climate change adaptation plans. Originally conceived as group workshops, they have had to redesign their approach and provide one-to-one sessions which are practically focused, which is a widely used support approach in this sector (akin to farm advice services).

Grass root organisations and businesses who operate within the community with established levels of trust, are the types of organisations best able to deliver this intensive support approach. This allows them to work across the community, and reach otherwise harder to engage members of the community who may be more vulnerable to climate change. Projects recognise this need to hold a position of trust within the community, and eight of the projects have adopted some form of community champion model to deliver project activities. The variety of intensive approaches being used and emerging lessons are highlighted below:

- **Green Doctors:** Manor House PACT are using Green Doctors (trained energy assessors) to explain what individuals can do to protect themselves from climate change. Discussions have been transformed into actions (e.g. saving energy and water) by installing technologies. Follow-up investigations after 3 months showed 80% of people who pledged to take forward actions had kept their original pledges.
- **Schools** are being used to influence not only the student's behaviour, but also influence household and community behaviour by acting as demonstration projects. An air pollution pilot was run by Manor House PACT with the help of Key Stage 2 teachers. This was an air quality bubble day - when all parents and students were encouraged to take alternative modes of transport instead of driving. This project is now used to support the science curriculum.
- **Engaging community interest groups:** Engaging existing community associations at their existing sessions (e.g. local knitting groups, gardening groups, toddler groups) other than just "keen greenies" has helped a number of projects to discuss the impact of climate change with harder to engage residents and provide examples of how other individuals and groups have taken action.

3.6 Developing project monitoring and evaluation plans which capture the impact of project activities in relation to the wider context of making a community more sustainable is challenging.

Interviews conducted for the purpose of this report highlighted that projects have yet to put in place evaluation frameworks to evidence the impact of their projects. Nine of the twelve CLS projects are accessing technical support to develop these, either through University partners or commissioned consultants to develop the monitoring & evaluation (M&E) component of their project.

As these M&E plans are currently in development, there is insufficient evidence at this stage to draw conclusions on how effectively these plans will evidence impact. However, there is an important role for the technical evaluation partners to enable projects to link their project's mitigation and adaptation impact to the wider area context of adapting to climate change.

Mitigation actions can be captured using objective before and after measures of the use of a resource e.g. water capture, energy use. The impact of discrete activities specific to climate change adaption e.g. emergency risk management plans can be captured through subjective measures such as individuals confidence levels before and after implementing the plans. The plans can be validated through a desk-based exercise to test if the plan works. However, if we are to understand how the project activity has supported the local community to become more sustainable, the findings of these impact studies need to be set within a wider context of action in the area to build resilience, support climate proofing and enable longer term transformational change.

3.7 Having partners with strategic influence and technical skills is key to progressing climate change adaptation activities within communities.

Climate Change adaptation measures are generally part of long term, strategic investment plans requiring large capital resources and because of this, have historically been managed by statutory agencies. It is generally recognised that climate change adaptation is not as straightforward to plan or deliver as mitigation²². Community projects therefore cannot deliver adaptation measures alone, and require statutory agency support. The CLS programme recognises this and specified the need for a partnership approach led by the voluntary sector. It is those projects with strong statutory partnerships working together, and in areas which are facing an immediate risk of flooding, that are making early progress in implementing climate change adaptation measures.

The Sustainable Sheppey case study outlined in section 3.1, shows the progress that can be made when there is effective partnership working between statutory agencies and communities. In order to implement climate change adaptation measures at a community scale, local groups need the support of their local authorities and statutory agencies to influence the scale of activity necessary to have impact.

Projects also require technical support to progress climate change adaptation projects. Some projects are using their funding to access this support, for example Sustainable Harborough appointed a technical consultant to provide advice on mitigation measures for carbon saving for the Eco-house. Interviews with projects highlighted the need for access to specialist technical information for example, adaptive farming and hard river defence mechanisms.



4.0 Recommendations:

4.1 Understanding change & impact

A number of activities carried out by CLS projects have the potential to be scaled up and have a greater impact if project activity is properly aligned with strategic stakeholder activity within their local area.

- **To increase the scale of impact of climate change adaptation activities, projects and local authorities should be encouraged to increase the level of integration between community-led activities and the local council's activities in this area.** Those CLS projects who are making the most progress in climate change adaptation are developing adaptation plans and emergency response plans with the support of their local council's climate change teams or other strategic stakeholders such as the Environment Agency. CLS projects who have future plans to implement emergency planning responses, will require support to help them firstly identify what adaptation activities are carried out by their local council and secondly to enable them to prioritise actions which could potentially link with these activities. This support could be offered to these projects by the Groundwork UK Learning Partnership through the test and stretch support function.
- **Community led climate change mitigation actions could be further developed to support a transformational change in the local economy.** CLS projects could widen the impact of their projects by developing local economic activities from the mitigation activities being delivered by themselves and project partners. This support could be offered to these projects by the Groundwork UK Learning Partnership through the test and stretch support function, particularly exploring ecopreneurship, circular economy opportunities, and planned local infrastructure projects (e.g. transport, energy).
- **The impact of project activities should be understood in relation to the extent they support communities to be more sustainable.** The Groundwork UK Learning Partnership could engage with a learning group of academic partners to the CLS projects to help them understand the wider context within which their evaluation work sits and encourage them to explore the relationship between project level activity and climate change adaptation (resilience building, climate proofing and transformational change).

4.2 Learning how communities learn about sustainability

- **Community projects working to encourage their community to be more sustainable and resilient should deliver these messages through an intensive personal approach using local people and organisations.** CLS projects are finding individual, tailored messages from trusted local grass root organisations and local 'community champions' to be effective in engaging vulnerable and harder to engage communities to take action. Examples of good practice in this area include individual household visits by trained local energy advisors, classroom sessions in schools and engaging with communities through existing local community associations.
- **There is a need to provide practical examples of community led climate change adaptation projects within the UK.** Raising the profile of community led climate change adaptation projects nationally was felt by a number of CLS projects as a key way to increase understanding of the need for local action. Case studies emerging from the CLS programme will predominantly focus on mitigation activities and there is a lack of visibility of wider practical adaptation examples from across the UK. The Groundwork UK Learning Partnership could help identify case studies of community led climate change adaptation activity and if suitable examples exist, share these. The Joseph Rowntree Foundation has identified three case studies of socially just adaptation activities which would provide a starting point for investigation²³. As well as climate change mitigation case studies, the CLS programme will provide good examples of community led emergency planning adaptation activity outlined in this report. These should be collated by the Groundwork UK Learning Partnership as case studies to provide inspiration to other CLS projects and communities across the UK.

4.3 Supporting peer-to-peer learning

- **CLS projects have developed useful tools and materials as part of their work to address climate change which should be shared.** Examples of these include Sustain Eden's ten step plan to use within communities to develop emergency plans and Sustainable Sheppey's methodology to engage local communities in developing adaptation action plans. The Groundwork UK Learning Partnership will approach these projects to encourage them to share these materials with other projects via the learning hub.
- **Existing networks themed around Energy and Growing and Green Space should be used to foster greater understanding of the potential of project activities to support climate change mitigation and adaptation.** Future discussions among these networks could include:
 - Sharing approaches and expertise to develop economic opportunities related to food growing, energy generation and green social enterprises
 - Exploring the potential of food growing and distribution projects to contribute to the development of a local circular economy
 - Exploring how projects are using energy and food related projects to build their community's understanding of climate change and resilience and how they can evidence their impact on changing behaviours

4.4 Informing the Big Lottery Fund's decision making

- **Technical support is required by community groups to develop Monitoring and Evaluation frameworks.** Academic partners and other technical support are proving to be vital to develop the M&E plans for the CLS projects. Retaining the flexibility to design this expertise into the partnership, or provide through contracting technical support, is an important element of the CLS programme design that should be retained in future programmes. Projects should be encouraged to have M&E plans in place within the first year of project activities.
- **Funders could use their funding criteria and assessment procedures to promote future climate change adaptation activity delivered in partnership between communities and statutory bodies.** Climate Change adaptation activity is predominantly led by statutory bodies such as local authorities and the Environment Agency, whilst the work carried out by CLS projects shows the benefit of a localised, personal approach in engaging local communities with these issues. However, it is apparent that communities cannot tackle climate change adaptation issues alone, needing access to the large scale capital funding, long term strategic context and technical support that statutory agencies are able to provide. A targeted climate change adaptation funding stream which requires collaborative working between local authorities and community groups could initiate this process and provide much needed examples of community led climate change adaptation activity. However the breadth of activities included in this programme should take into consideration the need for both mitigation and adaptation activities to engage communities in activities.



4.5 Disseminating Learning to wider stakeholders

- **Publicise the benefits of community involvement in climate change mitigation and adaptation projects to wider stakeholders to encourage a joined up approach.** Evidence emerging from the CLS programme shows that local communities have an important role to play in stimulating community engagement in climate change mitigation and adaptation activities. The importance of community involvement is also recognised by the National Adaptation Programme²⁴. Local Authorities and other statutory bodies involved in climate change adaptation measures should be encouraged to work with local communities.
- **Share examples of how CLS projects are using climate change mitigation measures to develop community led economic activity with the Department of Communities and Local Government.** DCLG are currently exploring ways in which to promote community economic development and have held discussions with organisations with expertise in this area including Groundwork UK and the New Economics Foundation (nef). It would be beneficial for the Groundwork UK Learning Partnership members involved in this group to share the emerging learning from this report to influence future policy in this area.
- **Use the examples emerging from the CLS programme to provide an evidence base for how communities can tackle climate change.** The Joseph Rowntree Foundation has recently put out a research call to explore how communities adapt to climate change, with the CLS programme listed as one of the example programmes supporting this level of action²⁵. The Groundwork UK Learning Partnership will proactively engage with this research to share emerging lessons.



Appendix 1 - Sustain Eden. Building Community Resilience Case Study

The Sustain Eden Project, managed by Cumbria Action for Sustainability, works in partnership with Cumbria CVS and ACTion with Communities in Cumbria (the rural community council for Cumbria) to develop community resilience through the understanding of, and planning for, climate change.

The project is empowering local communities to build resilience to flooding and extremes of weather, by developing emergency response plans as well as working with voluntary organisations to ensure they can continue to operate their services during an emergency. This has helped to build partnerships between community groups, local councils, emergency services and organisations such as the Environment Agency. Work in the first year has focused on the areas of Eden most at risk of flooding, two communities in Ullswater - Patterdale and Glenridding and the Thacka Beck area of Penrith, identified by the Environment Agency as prone to flash flooding.

The project has proven successful at engaging local people and organisations in climate change adaptation emergency planning activity. Four support agencies including Eden Community Outdoors and Eden Sight Support now have emergency plans in place, 6 community members have been trained to help deliver emergency plans and 694 people have attended awareness raising events. Over 650 people have participated in events to share skills, knowledge and expertise through flood defence training, the Eden Community Conference and individual training to develop their own plans for coping in an emergency, such as flooding.

Organisational case study: Eden carers

Eden Carers exists to support Carers of any age who provide substantial and regular care on an unpaid basis. This can be for a family member or friend who cannot manage at home without some help. They can support all Carers who live within the Eden District of Cumbria, (the towns of Penrith, Appleby, Kirkby Stephen, and all surrounding villages).

An emergency planning awareness session was held with representatives from the organisation and subsequent support was given with reviewing service continuity arrangements in the organisation and putting in place a robust plan. As a consequence of the initial work with Eden Carers the benefits of undertaking a similar exercise with carers was identified and a resource pack, template and audio visual training resource have been developed. 484 carers now have plans in place increasing their confidence and ability to respond to emergency situations.

The resources and other related information is available at: <http://emergencyplanningcumbria.weebly.com>

Organisational Case Study taken from Sustain Eden First Year Evaluation Report: Porter Brown Solutions.

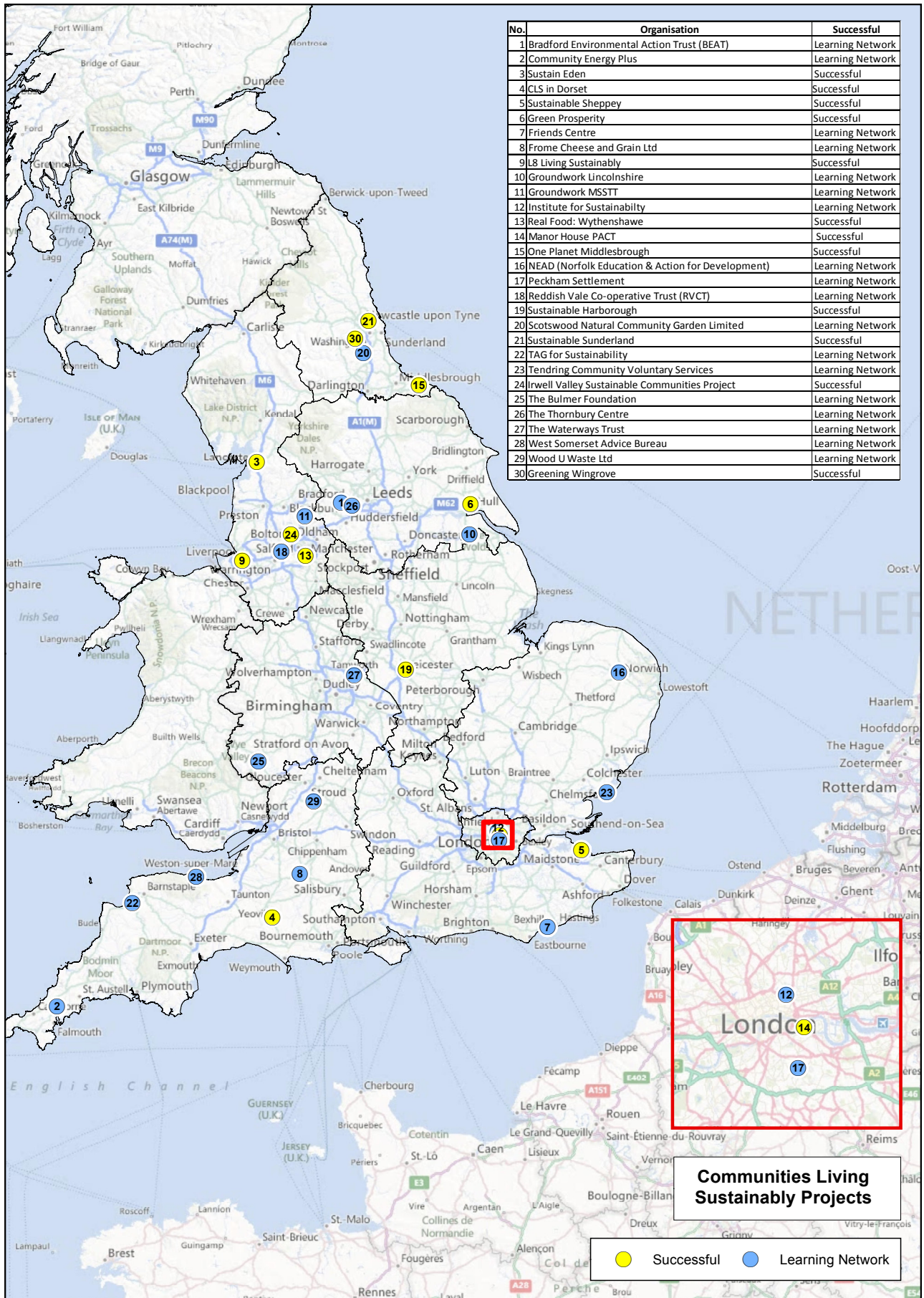
Appendix 2 - Project summary

Project Name	Amount awarded	Project description	Duration	Location
Sustain Eden	£955,270	Working with the remote, dispersed community of Eden in Cumbria. The project will look to tackle fuel poverty, promote energy efficiency and renewables, address flood risk issues through effective planning and investigate potential sustainable transport models. There is a strong emphasis on community resilience and skill sharing with particular focus on older people as a demographic most at risk	3 years	Penrith, Cumbria
Green Prosperity	£812,956	The project looks to support a 'Green Homecare Service' which aims to promote sustainable transport options for care workers. The project will also support communities to become more energy efficient, reduce waste and tackle fuel poverty through practical advice and home visits. The project will also create an Eco-house demonstration project which forms an interactive element of the project.	3 years	Hull
Manor House PACT	£999,049	Aims to deliver the PACT (Prepare Adapt Connect Thrive) programme. The PACT will work under the strands aimed at promoting access to open spaces, providing 'Green' vocational training opportunities and promoting interaction in the local neighbourhoods with a focus on climate change	3 years	London Boroughs of Hackney and Haringey
Sustainable Sheppey	£946,275	This project aims to promote the importance of local resources, making greener choices and developing new skills. The project will look to promote sustainable living through a Sustainable Homes Initiative; a community food initiative and renewable energy sources particularly a waste oil recycling scheme. Employment and skills will also be increased through the provision of an environmental awareness courses and training opportunities for energy champions.	3 years	Isle of Sheppey
Sustainable Sunderland	£999,066	A partnership approach across Sunderland. The project aims to increase the awareness and understanding of climate change through activities aimed at reducing fuel poverty; increasing environmental awareness particularly among social housing tenants and school children. Volunteers will also be provided with certified training which aims to improve their employability. The project will also look to engage the BME community who are traditionally less aware of climate change issues.	4 years	Sunderland

L8 Living Sustainably	£917,045	Operates across the Princes Park and Riverside areas of Liverpool. The project seeks to promote energy efficiency and sustainable energy sources including Solar PV and encourage local food growing through the creation of a patchwork farm. A community energy venture will also seek to provide local households with electricity at a reduced rate, including potential savings of around 30 per cent on household bills	5 years	Liverpool
One Planet Middlesbrough	£998,928	Promotes the principles of One Planet Living across Middlesbrough and the Tees Valley. The main focus of the project will be on sustainable transport; local and sustainable food; sustainable water; climate change adaptation; zero carbon and zero waste. The project looks to achieve behaviour change among deprived communities, those with low educational attainment and people living with a variety of health issues.	5 years	Middlesbrough & Tees Valley
Sustainable Harborough	£999,962	This project has a focus on the town of Market Harborough as a 'test bed' for sustainable living, and looks to improve the environmental sustainability and resilience to climate change of an entire town. The project also aims to make an impact in water and energy efficiency, food growing and bio-diversity, as well as look to make an economic impact through the launch of a sustainable energy company and the Harborough Currency for example. RCC will also develop a demonstration house which will be retro-fitted for more sustainable living. The property will be used as show home for sustainable living with events held to highlight the changes that can be made.	5 years	Leicestershire & Rutland
The Irwell Valley Sustainable Communities Project	£999,986	A community-led project based in Salford. The project will increase awareness of climate change issues through community based working and interaction with local people to develop solutions which are most applicable to them. A key element of the project will be to develop land for the community to use for food growing initiatives. A carbon impact tool will also be used by local residents to raise awareness of the impacts behaviour change can have with a focus on fuel bills and energy savings. Green Champions will also support the community by promoting sustainable living.	5 years	Salford

Greening Wingrove	£978,147	Based in the Wingrove district of Newcastle. The project activities will focus on three main strands which are the maximisation of community assets, conscious consumption and a community innovation fund. The work areas include demonstration projects on topics such as food growing, water usage and energy generation. The community innovation fund will support the local community to develop initiatives and activities which will form part of the wider project with each initiative being responsive to the needs of the local community and be designed by them.	5 years	Newcastle upon Tyne
Real Food: Wythenshawe	£1,000,000	Based in Wythenshawe, Manchester this project aims to promote greater community cohesion and engagement with climate change. The project will include five flagship projects which draw on local resources. The five flagship projects include an indoor growing system; outdoor growing spaces; a walled community garden and sustainable eating. The project will also launch five community hubs to provide support and advice with a focus on the individual flagship projects. Examples of the community hubs include the Manchester College and University Hospital South Manchester.	5 years	Manchester
Communities Living Sustainably in Dorset	£960,523	This project aims to improve resilience to climate change across Dorset by delivering a range of activities to address the greatest needs. It will involve engaging communities and businesses to adopt 'green' behaviours, supporting schools to achieve 'eco-school' status, recruiting residents as volunteers to help people in their community improve their resilience to climate change and developing social enterprises such as a wood fuel enterprise that uses local woodland resources.	5 years	Dorset

Appendix 3 - Map of CLS projects



References

1. Mitigation is 'an anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases' (IPCC, 2001a) <http://www.ipcc.ch/>
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3. DEFRA 2012 www.gov.uk/government/uploads/system/uploads/attachment_data/file/69487/pb13698-climate-risk-assessment.pdf
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5. Climate Just is a joint initiative of the Environment Agency and Joseph Rowntree Foundation
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20. Information about the AdaptMe Toolkit can be found at <http://www.ukcip.org.uk/wizard/adaptme-toolkit/>
21. McDonough, W. and Braungart, M. (2002) Re-making the way we make things: Cradle to cradle. New York: North Point Press
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