



Climate Change
Local Area
Support
Programme

Adaptation Resource Pack

Step-by-step guidance for
Local Authorities with case studies
from around the North West of England.

**Getting Started on
Climate Change Adaptation**



www.clasp-nw.info

February 2011



Resource Pack | Climate Change Adaptation

This pack is designed to help Local Authorities to tackle climate change adaptation. Some have already made good progress and are ready to work on risk assessment of service areas so should start reading the **Accelerator Pack – Embedding Climate Change Adaptation into LA Processes**. Other Local Authorities have just started work on adaptation and should read this Starter Pack first.

Getting Started on Climate Change Adaptation

Our climate is expected to change throughout this century, and Local Authorities, together with the emergency services, are at the front line in dealing with the short term effects of severe weather, as well helping communities and businesses to recover afterwards. Research has shown that the most vulnerable members of society are most likely to be badly affected by severe weather, with knock-on effects in health, mental health, education and employment.

Climate change adaptation is a process to help ensure that an organisation can cope with these risks by putting in place measures to either reduce the risk or minimise the damage by having a well thought out response plan. In this way, it is no different to the usual risk management and emergency response procedures of any large organisation.

This document aims to help Local Authority officers to start the process of developing a climate change adaptation strategy, gain support for this work from others within the Authority and strategic partners, and document your progress.

This guidance has been produced by CLASP to help you to get started on the process of climate change adaptation. Further briefing documents provide more detailed guidance on integrating climate change adaptation into the following key service areas:

- **Planning & Development** Rossendale Borough Council
- **Highways & Transport** Cheshire West and Chester Council
- **Business Continuity** Pendle Borough Council
- **Capital Assets** Wigan Council
- **Emergency Services** Liverpool City Council

Our thanks to the following Local Authorities who acted as pilots for this process and who have helped to develop these briefings: Rossendale Borough Council, Pendle Borough Council, Wigan Council, Liverpool City Council, Cheshire West & Chester Council.



Getting Started on Climate Change Adaptation

Local Impacts of Climate Change

The UK Climate Impacts Programme (UKCIP) has developed a range of scenarios of likely changes to our climate for each area of the country (www.ukcip.org.uk). For NW England the general picture is likely to be:

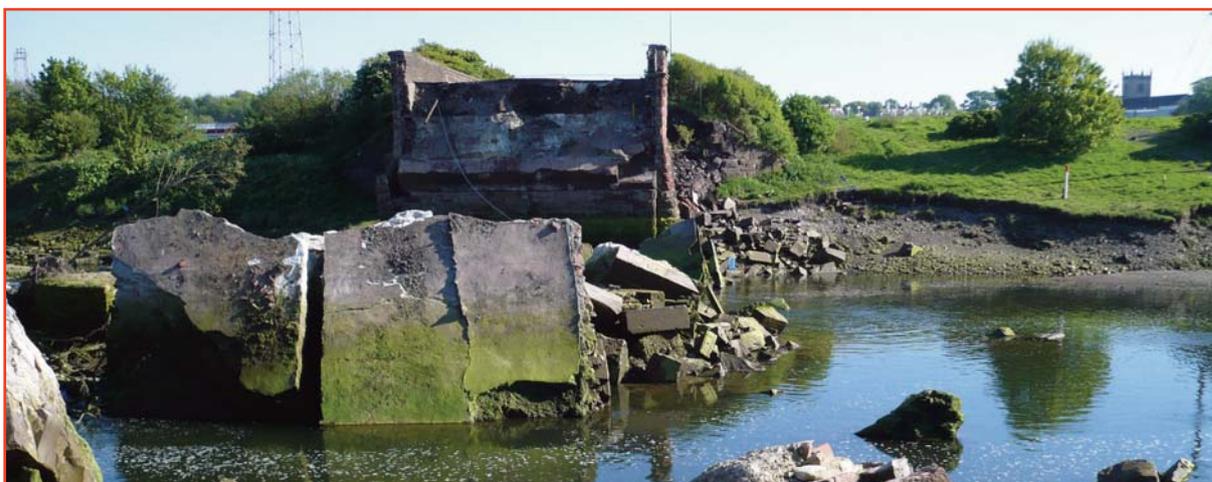
- Warmer, drier summers
- Milder, wetter winters
- More coastal erosion and a greater risk of coastal flooding
- More frequent severe weather events such as high winds, heavy rainfall and heatwaves.

It is important to understand the difference between weather and climate. Climate data is collected over a number of years (usually 30) to provide average conditions for a particular locality; weather is what we experience each day and, as we know, this can be very variable. This could be summed up as:

Climate is what you expect.

Weather is what you get!

Warmer drier summers would probably be very welcome and we may cope with a bit more rain in winter but more severe weather and flooding will bring about the main problems. The storm damage caused by recent gales and the devastating floods in Cumbria in 2010 are still fresh in everyone's minds. Even heatwaves, while welcomed by many, cause health problems for vulnerable groups such as young children and the elderly and the NHS is considering impacts of floods and heatwaves on health in its work on climate change adaptation.



The floods of 2009 caused serious damage to bridges and other highways infrastructure in Cumbria.

Such events not only cause misery for large numbers of people but it also costs enormous amounts of money to deal with the effects; for example the summer floods of 2007 are estimated to have cost over £3 billion across the UK.

Getting Started on Climate Change Adaptation

Responding to Climate Change and Weather

To help make your Authority and local area more resilient to severe weather and a changing climate it is useful to think of your response in two categories:

Dealing with weather-related emergencies

Emergency Response – making sure your staff are able to cope with the immediate emergency and that all the response organisations work effectively together.

Business Continuity – making sure you have plans in place to be able to continue to deliver critical services during and after an emergency, when your own staff are likely to be affected by that emergency.

Planning to reduce or avoid the risk of weather affecting your service

Identifying those parts of your service that may be affected by weather and looking at ways you may be able to make changes to your operations or facilities to reduce or minimise these effects. This includes looking at how longer term changes may need to be addressed now, for example through the Planning system.

Climate change doesn't only pose threats; there may also be opportunities. Warmer winters are likely to reduce the number of winter deaths. Changes in planting towards drought-resistant plants may lead to lower-maintenance parks. Supporting communities to become more resilient to weather crises may reduce dependence on public services at other times.

Getting Started on Adaptation

First of all, don't panic. Much of the work to deal with climate change impacts will have already been done or is underway, either locally, sub-regionally, regionally or nationally. Most authorities or sub-regions have carried out a Strategic Flood Risk Assessment (SFRA). Most Planning Authorities will be in the process of incorporating information from this into their Core Strategies. The NHS has a national Heat Plan to deal with heatwaves. The Environment Agency has flood warning systems in place. The utility companies have drought plans. Together with the Emergency Services, you will have emergency response plans to deal with a range of crises. You will also have a Corporate Risk Register to deal with a range of operational risks, and Business Continuity Plans for use during and after emergencies.

The key to effectively adapting to climate change is to use as much of this existing work as possible and persuade those people who are already responsible for managing risk and responding to emergencies, to include climate risks as well.

You should also think about the pace at which you want to go through this process. It takes time to get all the relevant people to understand the potential impacts for each department. There may be departments that you want to prioritise, or others where it may be sensible to delay to fit adaptation into an existing process such as a review of Business Continuity Plans, or the development of the Local Development Framework. If you've gone through a very consultative process on your climate change strategy then there may be sections of the



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process you can skip through quickly. If particular departments or areas have experienced a weather-related crisis then they may be able to complete sections faster. A lot of the work is about building the capacity to make adaptation a business-as-usual activity, making it sustainable by embedding it into the skills and routines of the departments.

Before starting to think about your response, it is important to understand how much and in what ways you might be affected by weather events and climate changes, how likely the risks are and how well you already deal with them.

Stage 1: Getting the Commitment

Many local authorities have publicly demonstrated a high-level commitment to tackling climate change through the Nottingham Declaration, the Covenant of Mayors, or similar. It may be supported by a published Cabinet Statement that the council has committed to, ensuring it adapts to the impacts of climate change. You may have a published Climate Change Strategy that has been developed in consultation with your partners and which includes adaptation as well as mitigation. This is a useful basis for taking forward your work on adaptation. However, if you have not got a climate change strategy or high-level commitment to tackle climate change, you can still build climate change adaptation into your policies and practice in order to build up resilience locally, for example, by ensuring that planning policy takes expected weather changes into account to reduce the risk of flooding or heatwaves.

Getting help from a Team

Who you'll need varies depending on the type of Authority (County, Unitary, District) and the services they are responsible for. You should expect to involve service heads from departments such as:

- Planning & Building Control
- Housing
- Transport
- Community Care
- Social Services
- Environmental Health
- Waste
- Parks & Gardens

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How do I get this on busy managers' agendas?

- Sefton's team got a slot in departmental meetings to introduce the topic before bringing everyone together in a workshop
- Speak to your risk manager to find out how they work with service heads and explain it's a new topic to include in that process
- Use examples that relate to the department's work and relate to cost, people they serve or staffing/workload

Fact Box:

Eg. Cumbria floods: Losses are estimated to exceed £450M; £250k emergency funding from Cumbria CC; Temporary road bridge £4.6M from DfT; EA spent £1.1M on recovery work; Rights of Way repair costs £3.5M; Allerdale BC Emergency Helpline – 20 staff, 24/7, 1,400 calls in 4 days

Eg. Lancashire County Council's review of impact of severe weather found that:

- | | |
|--|---|
| • %ge of Calls for Severe Weather events was up by approx. 70% (2009/10) | • Property Services Storm Damage (2003 – 2007) - £1,560,452 |
| • Blocked gullies/drainage problems – 2nd most common call type | • Alarm panels struck by lightning |
| • Highways spending on storm damage (2003-2006) – £735,785 | • Fence panels blown down |
| • Winter Maintenance (2003-2006) - £14,101,812 | • Damage to roofs |
| | • School closures due to weather events (2004-2007) – 359days |

A longer list of example impacts on service areas can be found in the **Business Continuity** section for this project on the CLASP website.

The UKCIP website includes information on the climate impacts and possible adaptation responses for the main service areas provided by Local Authorities.

It is useful to involve partner organisations at an early stage both to capture their knowledge and expertise and to ensure their support throughout the process. At a later stage when you risk assess your emergency and business continuity plans you will all need to work together to ensure your response plans are effective for both the short and long term changes we expect.

- | | |
|---|-----------------------|
| • Fire & Rescue | • Environment Agency |
| • Police | • Highways Agency |
| • Primary Care Trusts and Ambulance Service | • Transport Operators |
| • NHS Trusts | • Chamber of Commerce |

It is also worth speaking to neighbouring Authorities to find out what they are doing, as much of the work on, for example, flood risk, is being done at sub-regional level or in river catchment areas.

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Stage 2: Gathering Information

1. Finding out what's already going on

You will already have a number of policies and strategies that will include some response to climate change and weather. These should include:

- Climate Change Strategy (your own and/or a County-wide one)
- Strategic Flood Risk Assessment
- Local Development Framework documents
- Community Risk Register
- Corporate Risk Register
- Emergency Response Plans or Disaster Recovery Plans
- Business Continuity Plans for your key service areas

You may also have specific response plans in place for certain risks in some service areas such as how to deal with heatwaves in schools or social care buildings.

For this baseline, or information-gathering stage, you will need to list all of these documents and know who is responsible for managing or updating them.

You then need to check through them to assess how well they actually address climate change risks. However, whilst it is worth gaining an overall view on how well advanced this is, you will get much more information on how well the strategies and response plans work during the development of the LCLIP and risk assessment exercise, so don't spend too much time on it at this stage.

Getting help from the team – this is where you need to start involving people from all departments.

2. Finding out how you manage risk in your Authority

Although climate change adaptation is often the responsibility of Sustainability or Environmental Officers, it should not be viewed as any different to other risks the organisation faces, so it is essential that management of these risks becomes part of the usual business risk management procedures. If you can get this message across at the start, it will make your work a lot easier.

Find out who is responsible for managing the Corporate and Community Risk Registers and go and talk to them.

- What weather risks are already included in the Risk Registers and are there any important gaps?
- Are other risks included for which the response would be the same as for a climate/weather risk (e.g. transport or communications system disruption)?
- What is the timescale for corporate risks and are there any processes to deal with long-term risks?

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- What is the corporate attitude to risk and are certain service areas particularly risk averse?
- What is the process for adding new risks onto the Risk Registers?
- Who needs to be involved?

Discuss the process for managing business continuity.

- Who is responsible for maintaining Business Continuity Plans?
- Which are the critical services and what are their key risks?
- To what extent do these already deal with weather-related emergencies?
- Do they cover other emergencies where the response would be the same as for a weather/climate event?
- How frequently are Business Continuity Plans updated and what is the process for doing this?

Find out how they want to incorporate climate change adaptation into their work and how they can help you.

3. Working out the Impacts for Your Area - the Local Climate Impacts Profile (LCLIP)

This tells you:

- How you have been affected by weather in the past
- How you have responded to this

It may also tell you how neighbouring or similar authorities have been affected

Not all Local Authorities in the NW are subject to the same risks from severe weather and different communities can be more vulnerable than others to the effects of the same weather.

An LCLIP aims to assess the local vulnerability to recent and likely weather events rather than the longer term effects of climate change, by looking at how the weather has affected your Authority's ability to deliver its services. An LCLIP is a record of:

- The details and consequences of recent weather events;
- Which departments or agencies are affected by or responsible for managing the consequences and their preparedness for these events.

As well as contributing to the adaptation process, the LCLIP helps to demonstrate to others in the Authority some of the costs associated with dealing with weather, and may show how these could be reduced.

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What you need to do:

1. Collect information from local news reports from at least the last 5 – 10 years (longer if you have time) on severe weather and how this has affected the community and council services.
2. Talk to staff members in different departments to find out how they were affected, and what they did as a result.
3. Find out if you have any information on the additional burden placed on the service as a result e.g. extra staff, equipment and costs.
4. Ask if they have noticed any other changes related to the weather, e.g. more grass cutting, greater need to clear drains, changes in staff productivity in hot weather.
5. Record your information, usually in a table.

Many authorities have used student placements or trainees to collect this information.

How much detail do we need?

As much as you can get fairly easily, bearing in mind that this exercise will be very low down the priority list of the people you want to talk to, unless they have experienced a weather emergency in the recent past e.g. flooding or the last cold winter. This will limit it to extreme weather events that people remember, but will provide a starting point for further work. Don't worry if you feel you've only skimmed the surface at this stage – the risk assessment process will help to bring out more detail from each service area. The media coverage may focus on the negative impacts, so bear in mind opportunities presented by climate change too, such as warmer summer weather that can get more people to take advantage of sports and leisure facilities or outdoor events.

Who to involve

You should aim to talk to most service areas/departments as they will have different responses. For example, the recent cold winter may have caused:

- Waste Services to be unable to collect household waste
- Social Services to have difficulty in getting to vulnerable people
- Education to have to close schools
- Fleet managers to have been unable to get deliveries of fuel.



Getting Started on Climate Change Adaptation

Excerpt from Cheshire West and Chester Council's Local Climate Impact Profile

In the past 16 years Cheshire West and Chester Council has been affected by a total of 111 significant weather events.

The term 'significant weather event' is used in accordance with the UKCIP definition: a "weather event that has a consequence for the locality" (UKCIP, 2010).

Some 53 weather events that have had an impact upon the area were recorded in the local media. In addition, supplementary information from insurance data added a further 58 events.

Impacts ranged from storm damage to properties and roads, to drought conditions and fires due to high summer temperatures.

Case Study: Strong Winds Across Mid-Cheshire January 2007

Strong Winds Cause Chaos Across Mid-Cheshire

- Strong winds reaching up to 79mph
- Trees and branches blown down blocking roads and bringing neighbourhoods and traffic to a standstill whilst Police put up diversions to ensure the safety of drivers
- Damage caused to roofs and buildings. Schools were closed
- Power cables brought down
- Fire and Rescue Services received 424 emergency 999 calls in a 5 hour period and dealt with patients suffering from head injuries, lacerations and bruising caused by falls, collapsed roofing and scaffolding.
- The roof of the Asda supermarket in Winsford was ripped off resulting in the store and surrounding road being closed
- The M56 Weaver viaduct was closed around junction 12 with one lane open eastbound to allow standing traffic to clear. The M6 was closed at junctions 20/21 at the Thelwall viaduct, in both directions and the A49 and M62 were also affected

Costs

Damage to council property and clean up operations were expected to cost at least £150,000.

Action

25 team members from Vale Royal Borough Council worked across the area dealing with more than 700 trees that had been brought down by the winds and the significant number of roads that were blocked as a result.

Getting Started on Climate Change Adaptation

Reducing the workload

If you have not already completed an LCLIP, see if one has been completed for the county or sub-region, or in neighbouring authorities, and add your local information to this rather than starting from scratch.

Holding an introductory workshop

Many Authorities have found it useful to arrange an introductory workshop to discuss adaptation issues with partners at this stage in the process. This is a quick way of involving the right people, finding out what they already know, what plans already exist to deal with weather events and what they think the key issues are. It also helps to discuss how adaptation links to other key service issues for the Authority and LSP partners such as

- Maintaining service delivery
- Supporting vulnerable groups
- Exploiting business opportunities
- Avoiding unnecessary expenditure.

The workshop is also a good mechanism for getting climate change adaptation on the agenda and can be used to gather support for moving onto more detailed risk assessment of service areas because the right people will be in place to develop the Risk Assessment and Action Plan.

The UKCIP website has detailed information on how to prepare an LCLIP, including a spreadsheet model that helps to organise the information gathered. www.ukcip.org.uk



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Stage 3: Pulling it Together

Summarising the Information

By this stage you will have collected a lot of information and should be able to pull together a report to share with your senior management, colleagues and partners on your progress. This should include:

- A summary of how weather has affected your services in the past
- A summary of the likely climate changes expected in your area and which may be the most significant
- A summary of policies and plans that do or should incorporate a response to climate change
- A list of people who are already involved in the process (or should be) and their roles
- A plan for the next stages.

Local Climate Impact Profile for Warrington

Rachel Waggett, Climate Change Manager at Warrington Borough Council has written a 6-page narrative document partly to collect the data evidence from the LCLIP into a form that she could easily explain to others, and partly so that she could check that her understanding of the background matched that of others who actually experienced these weather events. By reading this, colleagues can check that she has understood the context properly.

“The fact that the document is only 6 sides long really helped with getting others to read and comment on it.”

Rachel wrote in a plain English style and limited it strictly to LCLIP items - she did not speculate about future changes to weather as this will be her next step.

Rachel has fully referenced the document – as an internal document it is important to reference when the data was obtained and from where. “From a resilience point of view, I am the only person drawing all of these issues together and if I was to disappear, it would help the person who picked this up immensely. I have also got a hyperlinked version of the document which shortcuts to the relevant excel files and weather records, so that the source data can be viewed without searching through endless files.”



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Assessing Your Preparedness

You may want to summarise how different departments or services are progressing with adaptation by completing the Adaptation Checklist.

- We have a climate change commitment (eg Nottingham Declaration, Cabinet Statement, or climate change strategy).
- We know in general terms what climate changes are expected in our area.
- We have policies and strategies that include some responses to climate risks
E.g. Local Development Framework, Strategic Flood Risk Assessment, Community Risk Register, Corporate Risk Register, Emergency Response Plans, Disaster Recovery plans, Business Continuity Plans, Heatwave Plan.
- We have done a quick review of whether these policies actually do tackle climate risks and where potential gaps are.
- We have spoken to our partners (LSP) about climate change risks and what they are doing on adaptation.
- We know what our neighbouring authorities are doing on flood risk, river catchment area management and we know what is happening at a sub-regional level.
- We have met the Risk Manager/s to understand how our Local Authority manages risk and to discuss how this process deals with weather-related emergencies and longer term climate changes.
- The Risk Manager/s are willing to incorporate climate risks as an external factor in the risk management process.
- We have conducted a Local Climate Impacts Profile (LCLIP) which tells us how weather has affected/is affecting our service delivery and impacts on staffing, equipment, costs etc. This has engaged many of our staff in reflecting on climate impacts on their service area. We know what our climate vulnerabilities are at the moment.
- We have held a workshop on climate change adaptation to look at the future impacts of climate risks and weather events on our service delivery.
- We have summarised the information collected and have a plan for more detailed risk assessment and action planning with each service area.

The next steps to take are the risk assessment workshops outlined in the **Accelerator Pack - Embedding Climate Change Adaptation into LA processes.**

Getting Started on Climate Change Adaptation

Further Sources of Information

There is a wealth of information on adaptation in Local Authorities available to help you. Amongst the most useful are:

The **LG Improvement and Development** (formerly IDEA) website has useful information on adaptation including case studies such as the Liverpool City Council case study on developing a Climate Change Adaptation Strategy. The site also has good information on understanding the data in climate change projections.

<http://www.idea.gov.uk/idk/core/page.do?pagelId=13524862>

The **UK Climate Impacts Programme** has all the information on climate change adaptation including projections, information on LCLIPs and case studies (you have to log in to access these) and a range of tools and wizards.

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

Climate Change North West has useful information on how the northwest region is adapting to climate change, including sector briefings covering local authorities and key industry sectors.

<http://www.climatechangenorthwest.co.uk/1611/adaptation.html>

Information on the Energy Saving Trust website on climate change adaptation, this still refers to the NI188 Indicator and the five levels but has information on risk assessment for different business areas and case studies.

<http://www.energysavingtrust.org.uk/nottingham/Nottingham-Declaration/Events-resources/Adaptation-extras>

Local and Regional Partnership Board (LRAP) Adapting to Climate Change - Guidance Notes for NI 188 is a useful guide to the entire adaptation process. It includes good questions to ask on priority action areas and on including the LSP.

<http://www.lga.gov.uk/lga/aio/1382855>



Getting Started on Climate Change Adaptation

For more information on what to do to manage climate change adaptation please see the accompanying documents produced for the CLASP Climate Change Adaptation Support Project.



Why bother to do Climate Change Adaptation without NI 188?



Getting Started on Climate Change Adaptation



Accelerator Pack – Embedding Climate Change Adaptation into LA Processes

Climate Change Adaptation Risk Assessment for:



Planning & Development Rossendale Borough Council



Highways & Transport Cheshire West and Chester Council



Business Continuity Pendle Borough Council



Capital Assets Wigan Council



Emergency Services Liverpool City Council