

Adaptation Scotland

supporting climate change resilience

Public Bodies Duties Reporting Adapting to Climate Change

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SSN reporting training day | 22 June 2017

The Adaptation Scotland programme is funded by the Scottish Government and delivered by sustainability charity Sniffer.





Enabling organisations, businesses
and communities to adapt to the
impacts of climate change

Adaptation Scotland is a programme funded by the Scottish
Government and delivered by sustainability charity Sniffer



Our work is designed to:

- Increase understanding and confidence in tackling adaptation
- Inspire and enable collaboration and solutions to adaptation challenges
- Develop leaders who can influence adaptation across society
- Support local and global efforts to adapt

1. Introduction to adaptation

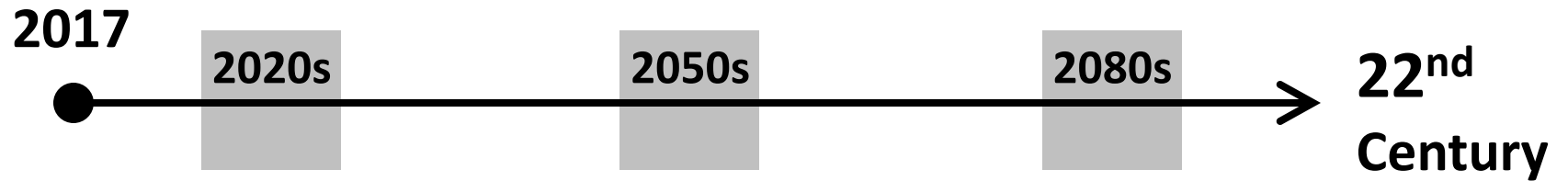
1. Adaptation planning and reporting

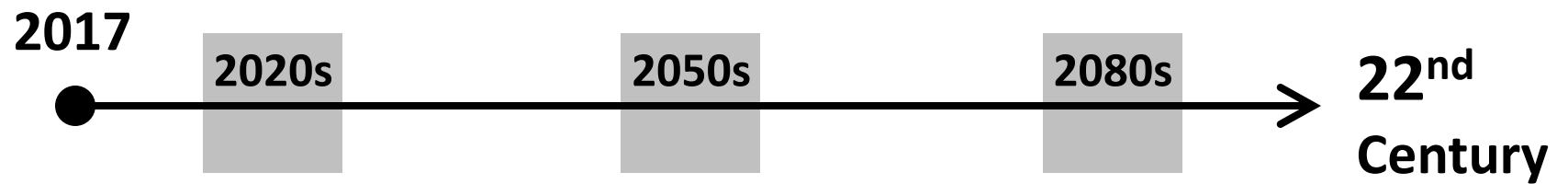
Introduction to adaptation

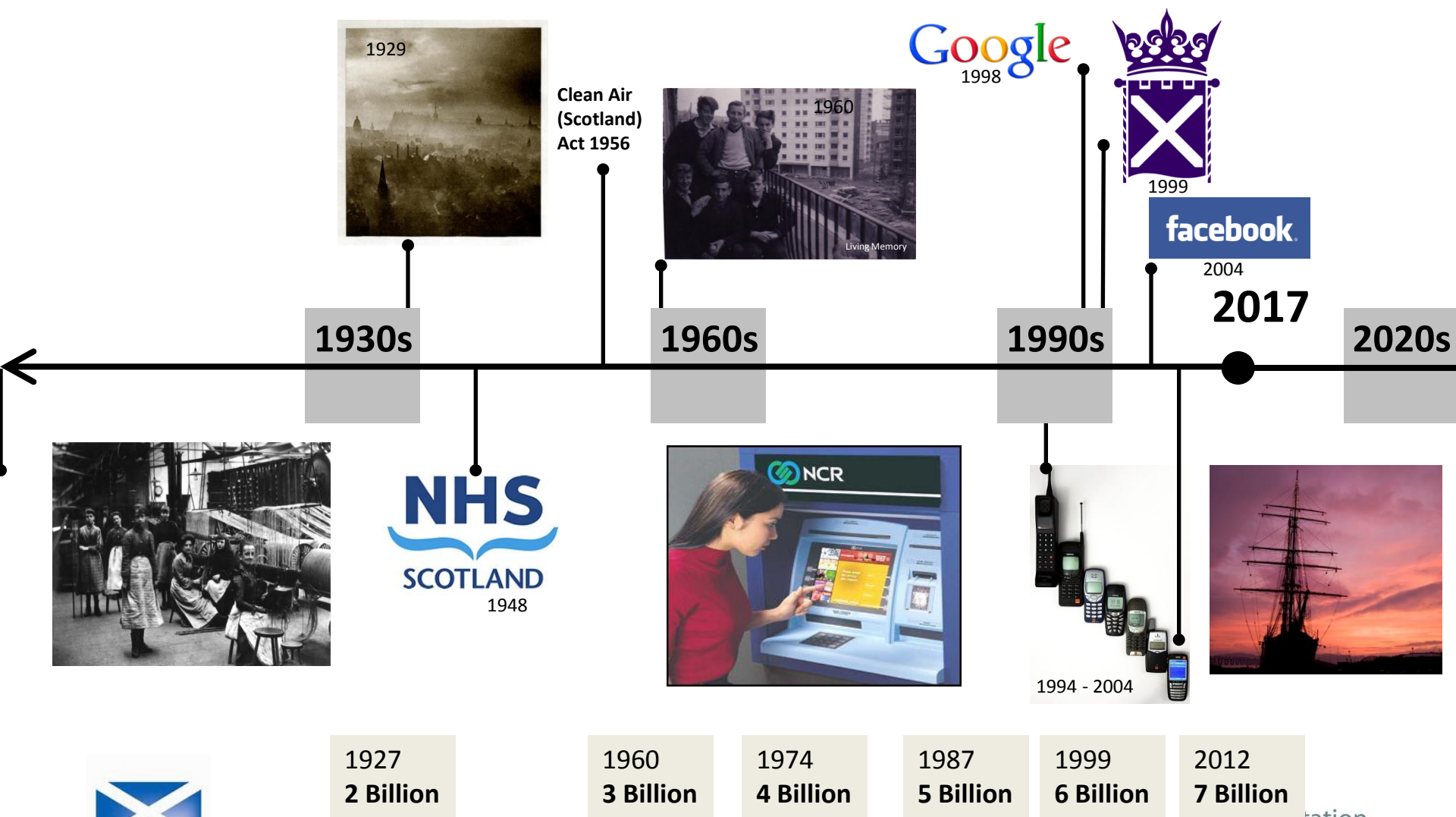
Change is constant.

environmental
social **climate** **legal**
political **economic** **technological**

The future? What timescale?







How is climate changing?

Weather affects us.



theguardian | TheObserver

News Sport Comment Culture Business Money Life & style

Environment > Farming

British farming in crisis as crop losses from 'relentless' floods pile up woes

Many farmers are quitting an industry hit by rain, disease and cheap imports – just as food security becomes a worldwide issue

Jamie Doward

The Observer, Saturday 23 February 2013 19:22 GMT

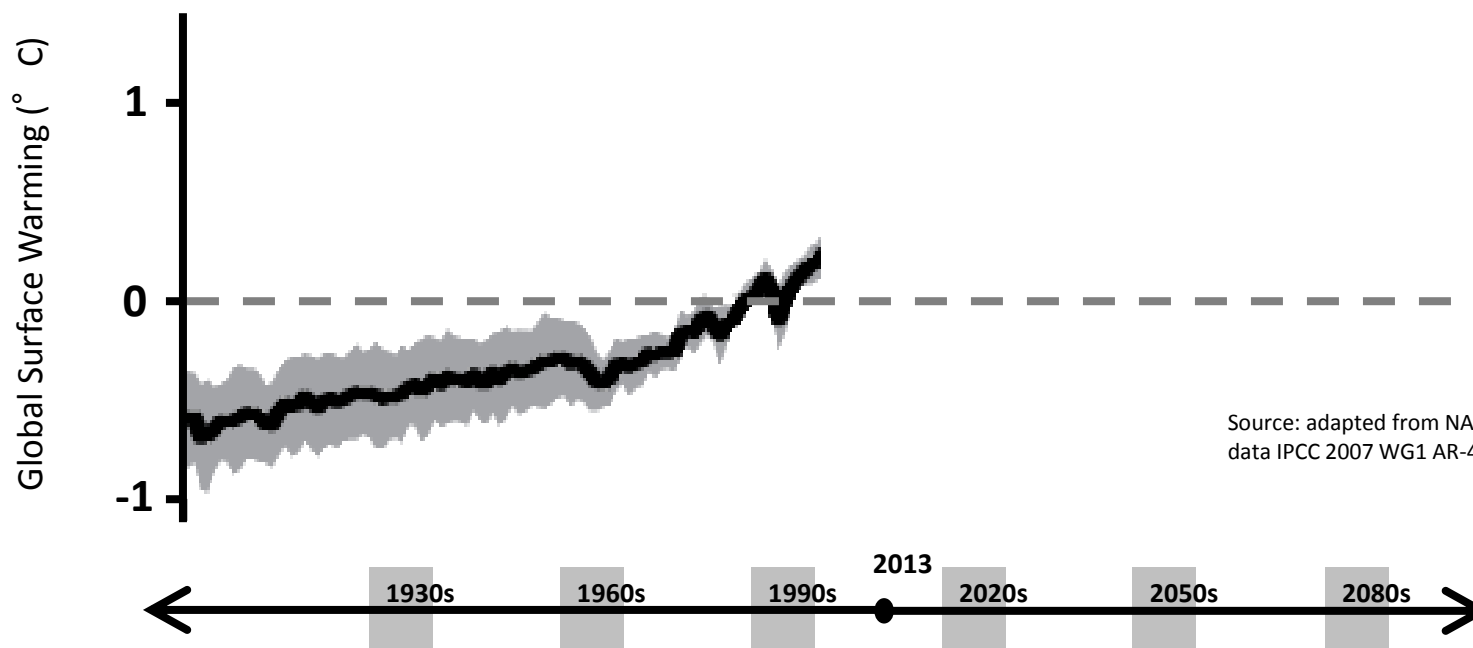
Jump to comments (384)



Photo: Andrew Fox

Understanding the Current Climate

Global surface temperature change

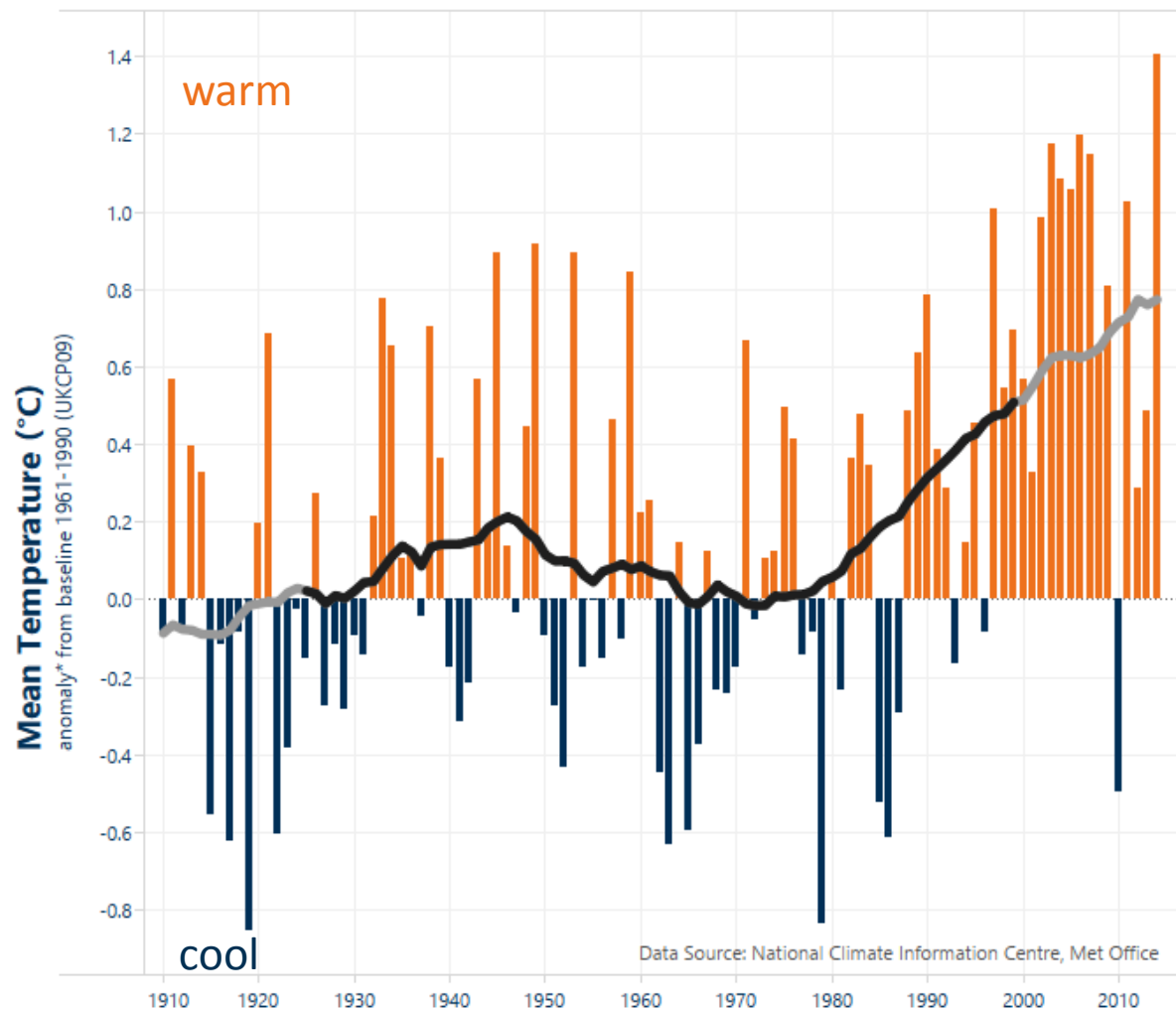


Source: adapted from NASA Earth Observatory data IPCC 2007 WG1 AR-4

Climate Trends for Scotland

Scotland - Annual Mean Temperature (°C)

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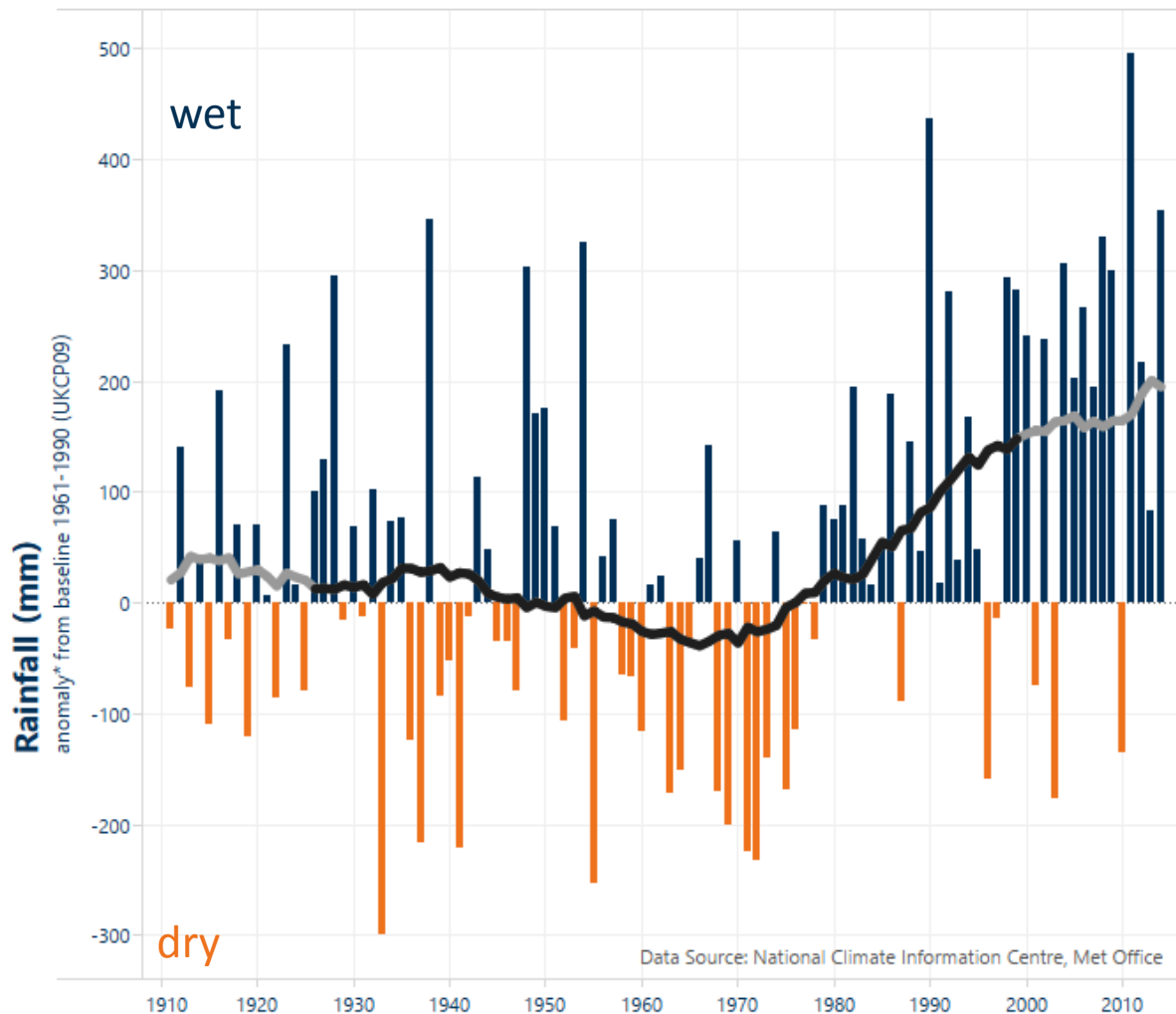


Mean Temperature

Climate Trends for Scotland

Scotland - Annual Rainfall (mm)

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Rainfall (mm)

Observed changes

- Increase in severe weather events
- Sea level rise
- Reduced snow and ice

Are we 'adapted' to today's climate?

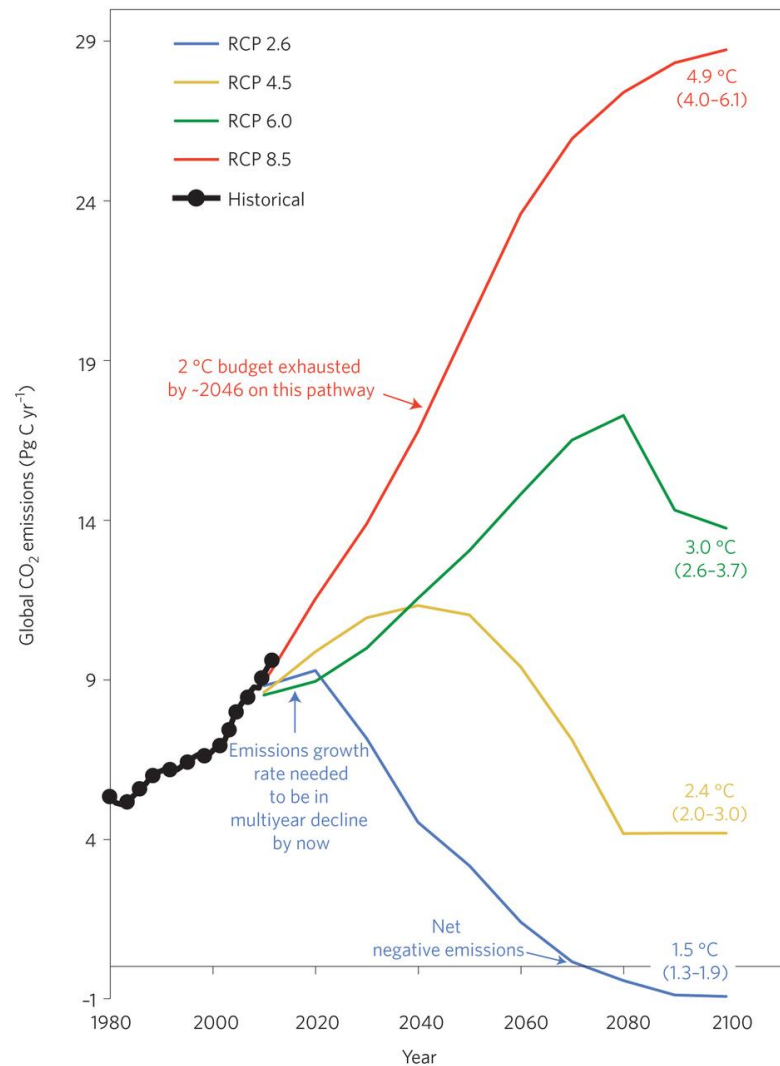


Adaptation to Present Climate or Weather

Adaptation to Future Climate Change

Understanding the Future Climate

Global CO₂ Emissions



RCP8.5

Figure: Observed and projected trends in global CO₂ emissions under four RCP scenarios.

The climate policy narrative for a dangerously warming world

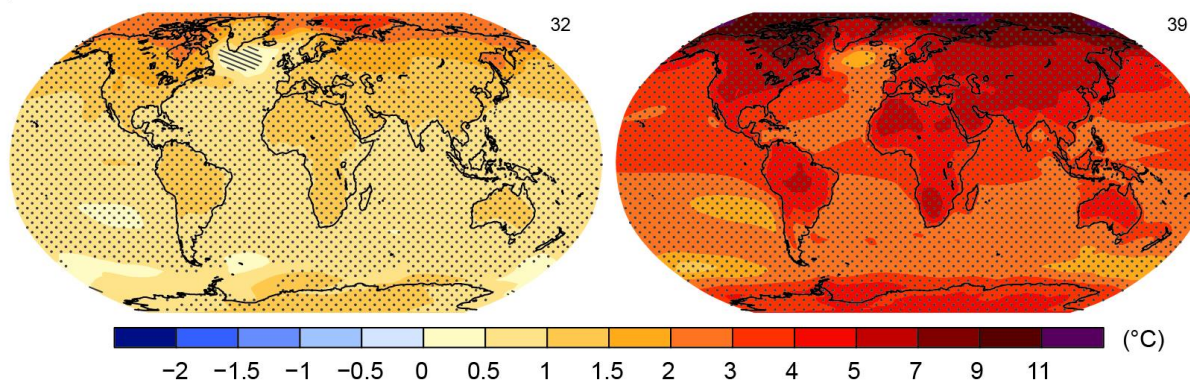
Sanford et al. (2014) Nature Climate Change 4, 164–166
doi:10.1038/nclimate2148

RCP2.6

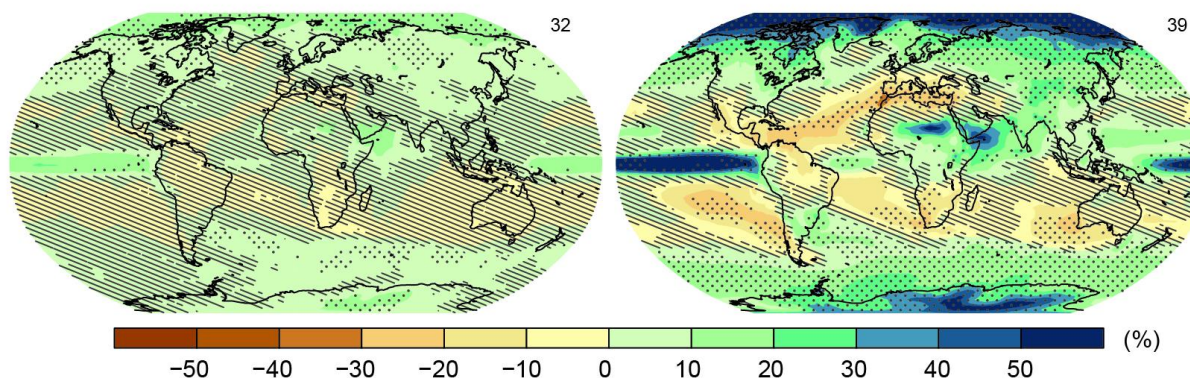
RCP2.6

RCP8.5

(a) Change in average surface temperature (1986–2005 to 2081–2100)



(b) Change in average precipitation (1986–2005 to 2081–2100)



IPCC AR5 Figure SPM.8: Maps of projected late 21st century annual mean surface temperature change, annual mean precipitation change, Northern Hemisphere September sea ice extent, and change in ocean surface pH

What do we know about Scotland's future climate?

Over the last few decades we have seen remarkable progress in our understanding of climate – and how humans are changing it...

... and we continue to improve on this.



Scotland has access to world leading information – the UK Climate Projections - about how our climate is likely to change over this century.

<http://ukclimateprojections.metoffice.gov.uk/>

The key long-term climate change trends for Scotland are:

- Weather will remain variable, it may become more variable
- Typical summer is hotter and drier
- Typical winter / autumn is milder and wetter
- Sea level rise

We can also expect to see:

- Increase in summer heat waves, extreme temperatures and drought
- Increased frequency and intensity of extreme precipitation events
- Reduced occurrence of frost and snowfall

Drivers of change

- Legislation
- Impacts

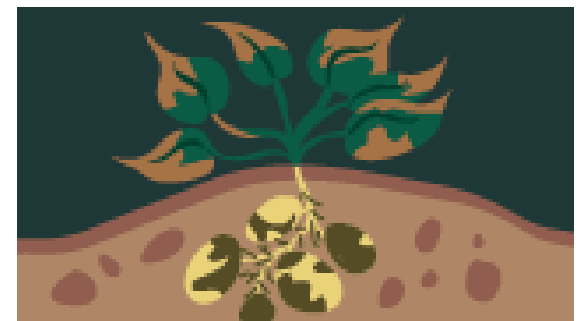
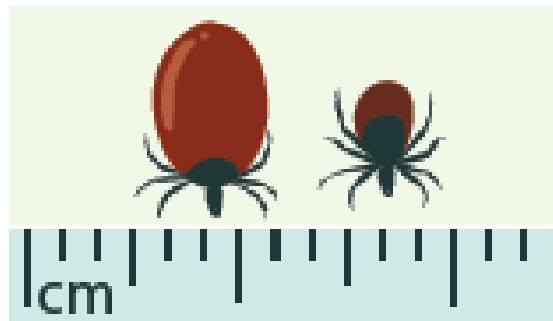
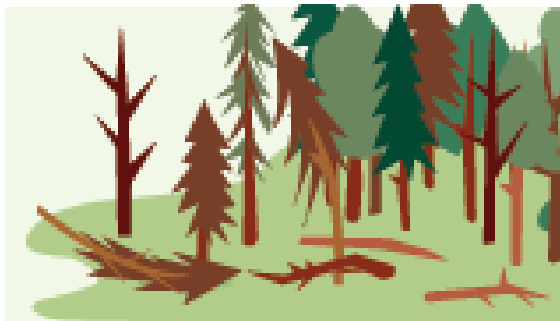
- Climate Change Act (2008)
- UK Climate Change Risk Assessment
- Climate Change (Scotland) Act 2009
- Scottish Climate Change Adaptation Programme
- Public Bodies Climate Change Duties
- Mandatory reporting – Public Bodies Climate Change Duties

Key consequences for Scotland

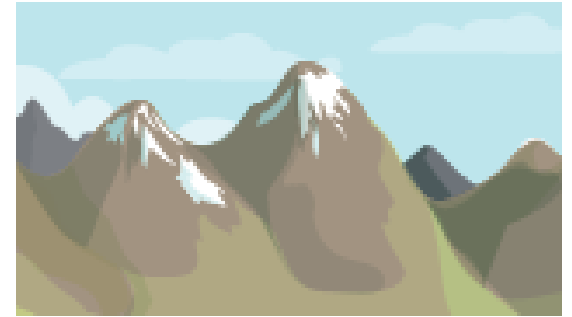
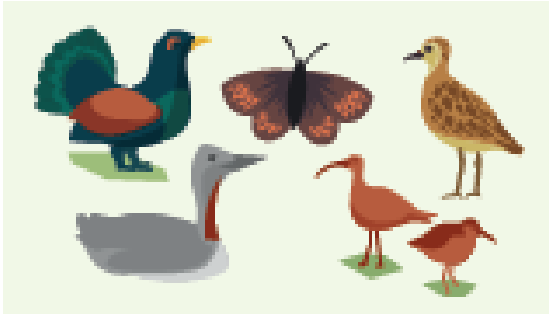
The productivity of our agriculture and forests



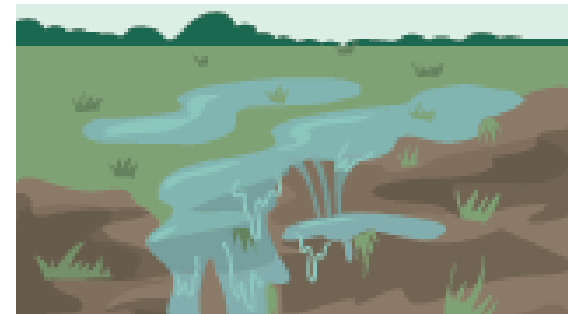
The occurrence of pests and disease



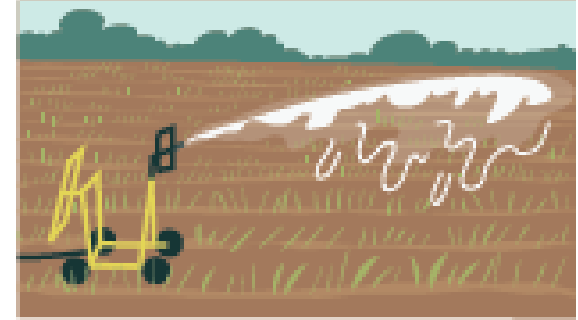
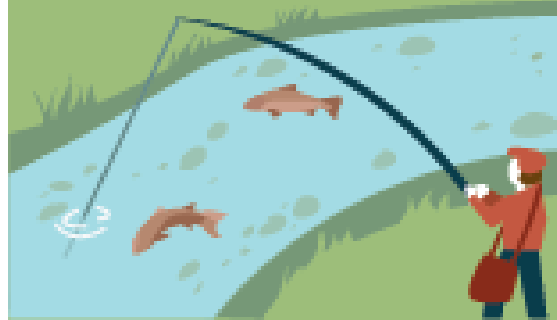
The health of our natural environment



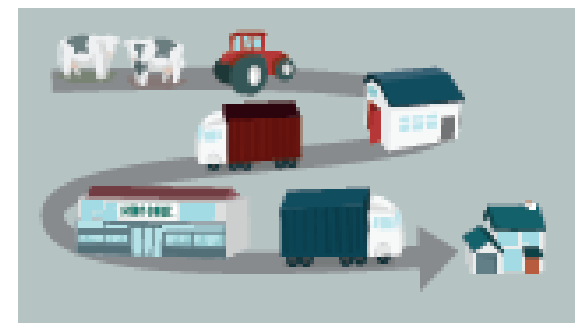
The quality of our soils



The availability and quality of water



The security of our food supply



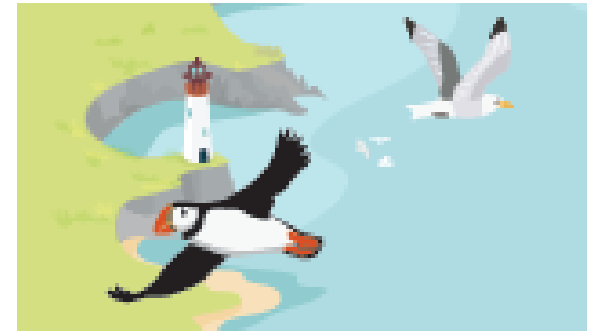
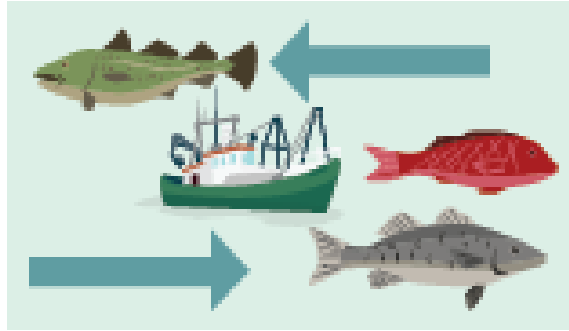
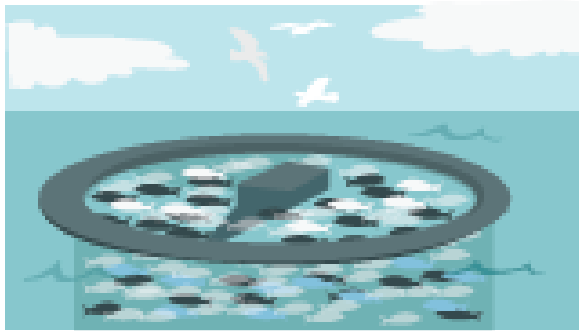
The change at our coast



The increased risk of flooding



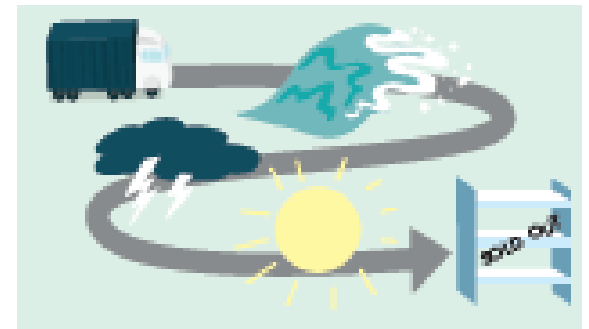
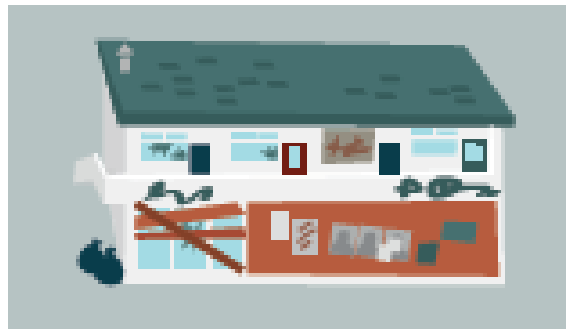
The health of our marine environment



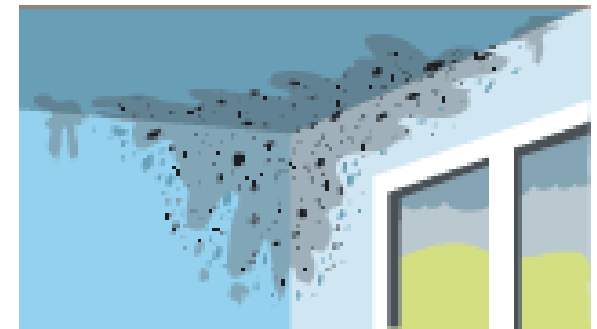
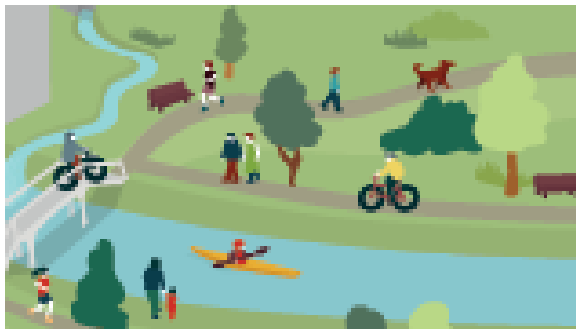
Our cultural heritage and Identity



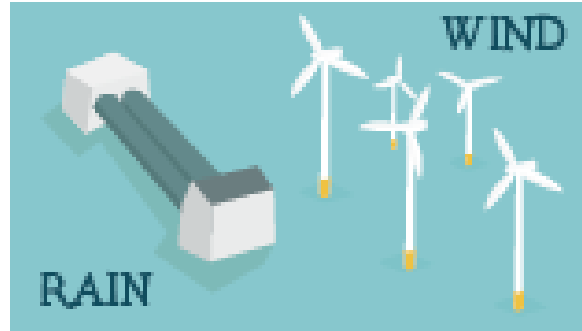
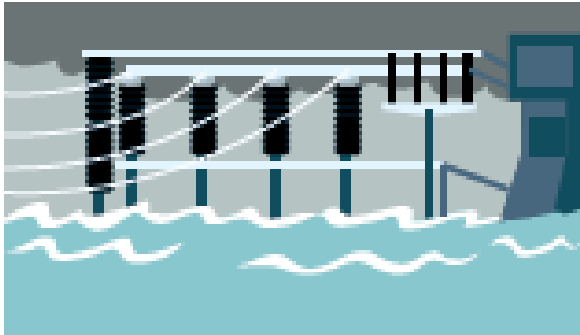
The resilience of our businesses



The health and wellbeing of our people



The security and efficiency of our energy supply

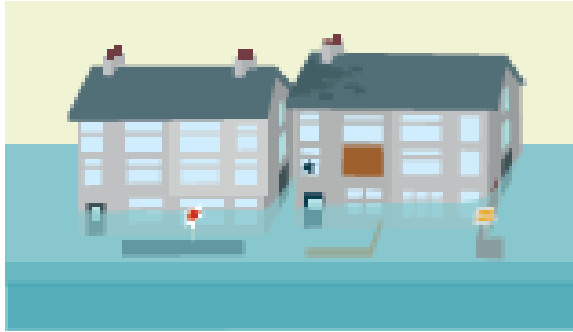


Infrastructure – Network Connectivity and Interdependencies



18:09	CANCELLED
18:15	CANCELLED
18:23	CANCELLED
18:27	CANCELLED
18:30	CANCELLED

The performance of our buildings





Adaptation planning and reporting

Outline

Five steps to managing your climate risks

A Guide for Public Bodies in Scotland



Supporting compliance with the Climate Change (Scotland) Act 2009
Public Bodies Climate Change Duties

4 Adaptation

Assessing and managing risk

- 4a Has the organisation assessed current and future climate-related risks?
If yes, provide a reference or link to any such risk assessment(s).

- 4b What arrangements does the organisation have in place to manage climate change? Provide details of any climate change adaptation risk management policies and actions included across policy areas.

Taking action

- 4c What action has the organisation taken to adapt to climate change? Include details of work to increase awareness of the need to adapt and stakeholders to assess risk and implement action.

“Adaptation is a journey, not a destination”

1 Define the challenge

- Identify aims and objectives
- Ascertain where your adaptation arrangements will sit within the organisation
- Find contacts working on adaptation
- Build the business case

OUTPUT: Briefing paper for senior managers

2 Assess climate threats and opportunities

- Understand recent and future climate trends





Service or department	<i>Estates</i>	
Manager	<i>John Smith</i>	
Critical function, service or asset	<i>1: Maintain physical infrastructure</i>	
Key performance indicator or specific objective	<i>To continue the improvement and provision of student residential accommodation</i>	
Is this function, service or asset currently affected by the following? If so, explain how.		
Heavy rainfall and flooding	<i>Although the existing student accommodation is on high ground, access to the site does flood.</i>	
Drought	<i>No</i>	
Very hot days and heat waves	<i>No</i>	
High winds	<i>There have been a few minor damages caused by the wind speed of the recent storms.</i>	
Snow and ice	<i>One of the student halls has concrete steps that need to be gritted often in the winter months.</i>	
Sea level rise and coastal flooding	<i>No</i>	
With changes in the climate in the future, could this function, service or asset be affected by the following? If so, explain how.		
Increasingly mild, wet winters	<i>Yes. Increase in damp in older student <u>accomm.</u></i>	
Increasingly warm, dry summers	<i>No</i>	
Increased heavy rainfall	<i>Yes. Potential for more surface water flooding and issues with drainage.</i>	
Less frost and snow	<i>Less grit required for student halls.</i>	

2 Assess climate threats and opportunities

- Gather evidence of past severe weather events and the consequences they had on your service continuity.

OUTPUT: Weather impacts table

Past weather impacts

Affected services and communities

Weather variable	Description of impact	Location	Date	Consequences (costs, service disruption, injury, reputation)	Critical thresholds	Actions / plans / policies put in place to reduce this impact	Evidence of the effectiveness of these actions / plans / policies	Responsible department/ agency	Services/ communities that were affected
Frost/ice	Sub-zero ground temperatures lead to a series of road incidents	Dundee	Dec 2012	Council worker injured leading to reputational consequences; wall needing repaired – unforeseen costs	N/A	Safe winter driving plan introduced	Number of winter weather driving incidents has decreased	Transport and roads; Police	N/A

Examples

USING AN LCLIP TO ASSESS A LOCAL AUTHORITY'S VULNERABILITY TO CLIMATE CHANGE

Case study: Aberdeen City Council

Between 2008 and 2013 Aberdeen City Council was affected by 59 weather related events, from flooding on the roads and fallen trees during stormy weather, to school closure and ice. Using a Local Climate Impacts Profile (LCLIP), the Council assessed its vulnerability to climate change, and examined how the findings can be used to increase their resilience to future weather. This case study explains how this process was completed using a six stage process.

How will the climate change in East Scotland?

UK Climate Projections 2009 data for East Scotland suggests that, under a medium emissions scenario, by the 2050s the region may see:

- An increase in summer mean temperatures of around 2.3°C, and of winter temperatures of around 1.7°C;
- A 10% increase in winter mean precipitation and a 13% decrease in summer mean precipitation.



Source: <http://ukclimateprojections.met.rdg.ac.uk/>

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What is an LCLIP?

A Local Climate Impacts Profile is a tool developed by UKCIP (an organisation set up to help society adapt to climate change) to understand how the current weather affects an organisation. The process involves researching past weather events through newspaper archives and interviews with key personnel.

Why do an LCLIP?

Working through the LCLIP process raises awareness of the impacts of severe weather events on the Council. In addition, it increases the understanding of where the Council needs to adapt its existing strategies, policies, plans and procedures to meet the changes. The LCLIP process has also helped to inform the Council's Climate Change Strategic documents which includes an Adaptation Plan.



The LCLIP

The LCLIP is a six stage process (Figure 1) over a 9 month period.

1. Purpose

recent weather events and interviews with key personnel.

2. Media review

sources we source we Aberdeen consequent events. Media out using weather, flood and flood also used newspaper libraries. The collated information is available in the LCLIP report.

ASSESSING AND ADAPTING TO THE IMPACT OF PAST WEATHER EVENTS IN THE HORTICULTURE SECTOR



Royal
Botanic
Edinburgh

Case study: Royal Botanic Garden Edinburgh

Horticulture and visitor services staff at the Royal Botanic Garden Edinburgh (RBGE) Regional Gardens are already adapting to climate uncertainty – dealing with flood periods of low rainfall, unseasonable temperatures and high winds. This case study the process used to investigate the impact of weather events across the different gardens and how this can be used to best deal with projected climate change.

Scotland's changing climate

We are already seeing evidence of Scotland's climate changing. Over the last few decades our climate has warmed, sea-levels have risen, rainfall patterns have changed and we have been impacted by extreme weather events. These changes are projected to continue in the decades ahead.

The UK Climate Projections 2009 data suggests that, for Scotland:

- the average climate will become warmer throughout the year;
- rainfall is likely to become more seasonal with
 - a typical summer becoming drier, and
 - a typical autumn and winter becoming wetter; and
- sea levels will rise.

We can also expect to see:

- increase in summer heat waves, extreme temperatures and drought;
- increased frequency and intensity of extreme precipitation events; and
- reduced occurrence of frost and snowfall.

Source: <http://ukclimateprojections.met.rdg.ac.uk/>

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The process

1. Getting people on board

The first action was to meet with the garden curators to explain the aim of the project, how it would be of value, and the output that would be produced.

2. Gathering information

Next, visits to each garden were arranged to interview key personnel and gather information on:

- observed impacts of current weather conditions and extreme weather experienced; and any adaptive actions taken as a result;

- risks related to climate change identified;
- potential opportunities from a changing climate;
- records of garden visitors and staff weather data.

3. Site visit

At each garden, the staff did a walk round to garden features and impacts and adaptive hand. Visitor service well placed to see the weather events on site.

The Gardens

The Royal Botanic Garden Edinburgh was established in 1670.

During the 20th century it acquired three Regional Gardens. The four gardens experience quite different weather conditions; Inverlochy in Edinburgh is the driest, Dawick the coldest, Benmore the wettest and Logan the mildest. Together they represent one of the world's largest living collections of plants.

Across the different Gardens, most kinds of extreme weather have been experienced.



ASSESSING CURRENT AND FUTURE CLIMATE THREATS AND OPPORTUNITIES

Case study: University of St Andrews



University of
St Andrews

Situated on the east coast of Scotland, the University of St Andrews is tasked with the challenge of both the maintenance of historic buildings and improving the resilience of its historic and modern buildings to the impacts of a changing climate. This case study explains how the University has undertaken a climate impact assessment workshop with staff and senior managers from the Estates department.

Where does this fit in the adaptation process?

The adaptation process consists of 5 stages to help you get started with adaptation, understand and assess the impacts of current and future climate change, identify your significant climate risks and prioritise your adaptation options. It will also help you to implement your adaptation actions, evaluate them, and continuously monitor and review your work. This case study sits within stage 2 of the process. The University of St Andrews are assessing the impacts of climate change in the Estates department and intend to use this process with other departments across the University.



View the adaptation process on our website and access tools such as the five steps to managing your climate risks. www.adaptationscotland.org.uk

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What is a climate impact assessment?

A climate impact assessment is a process that allows an organisation to assess their current and future climate threats and opportunities for their critical functions, and to respond by identifying strengths and weaknesses to managing the threats. The exercise is based on a SWOT analysis.

What are the benefits?

Working through a climate impact assessment raises awareness of the impacts of severe weather events facing each department, or service of an organisation. By involving Service Managers, you will be able to use their operational knowledge to inform the process and increase their understanding of the climate threats and opportunities. The approach allows others within the organisation to identify and implement actions that increase climate resilience, which encourages climate resilience to be embedded across the organisation and reduces the time pressures on one member of staff.

The process

A climate impact assessment workshop

was run with the Estates department at the University of St Andrews. The exercise involved working through the following questions:

1. What are the **current climate-related** threats to the department?
2. What are the **future climate-related** threats to the department?



Waves over-topping a car park between East Sands beach and the Estates department during a storm in 2010.

Aberdeen City Council is taking action on climate change as part of the Adaptation Learning Exchange (ALE). The ALE was set up by Adaptation Scotland to support the public sector plan for the impact of climate change.

RBGE has presented this information as part of the Adaptation Learning Exchange (ALE). The ALE was set up by Adaptation Scotland to support the public sector plan for the impacts of a changing climate.

The University of St Andrews is taking action on climate change as part of the Adaptation Learning Exchange (ALE). The ALE was set up by Adaptation Scotland to help organisations plan for the impacts of a changing climate.

3 Assess climate risks and identify actions

- Prioritise the threats and opportunities you have identified in the previous step through a risk assessment process.
- Identify and prioritise the actions to respond to.

OUTPUTS: Climate Change Risk Assessment and Action plan

Weather or climate impacts			2013			Critical thresholds	Controls	2013			2020s			2020s		
Climate hazard	Threat or opportunity	Consequences	Inherent risk		Risk rating			Residual risk		Risk rating	Inherent risk		Risk rating	Residual risk		Risk rating
			Likelihood	Consequence				Likelihood	Consequence		Likelihood	Consequence		Likelihood	Consequence	
Heavy rainfall	Flooding blocks key roads and prohibits access to hospital	Emergencies diverted to another hospital; medical supplies delayed; loss of life; reputational impact	2	4	8	Major road closures must be limited to 2 hours	Road management contingency planning; emergency planning	2	3	6	3	4	12	3	3	9
High temperature	Buildings overheat causing discomfort and reduced productivity	Health and safety impacts; Reputational impacts	1	3	3	Internal temperature must not exceed 28°C	Risk not currently considered	1	3	3	2	3	6	2	3	6
High temperature	Buildings overheat causing problems in server rooms	Disrupted services Loss of critical data	1	3	3	Server room temperature must not exceed 27°C and relative humidity level must not exceed 60%	Risk not currently considered	1	3	3	2	3	6	2	3	6
High winds	Trees blown on to key road and rail links causing danger to staff and delays to the delivery of essential care to elderly residents	Financial losses; Reputational damage; Injury / loss of life	3	4	12	Staff should refrain from driving when winds exceeding 70mph are forecast	Driver training; Speed limits enforced; High-risk trees identified	2	4	8	3	4	12	3	3	9

Same controls as 2013

likelihood of
an event

X

consequences
of an event

=

Risk

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27

Examples

SCREENING FOR NATURAL HAZARDS TO INFORM A CLIMATE CHANGE RISK ASSESSMENT



Case Study: Historic Environment Scotland

This case study explains how Historic Environment Scotland developed a GIS-based approach to screen their properties for climate-related natural hazards such as flooding, coastal erosion and ground instability. The project has been an important component of ongoing work to assess climate change risk across the Estate.

Where does this fit in the adaptation process?

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View the adaptation process on our website and access tools such as the Five steps to managing your climate risk. www.adaptationscotland.org.uk

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Who was involved?

Historic Environment Scotland (HES) have worked in close partnership with the British Geological Survey (BGS) and the Scottish Environment Protection Agency (SEPA) to conduct a Climate Change Risk Assessment for the 335 Properties in Care (PICs) on the Estate. This will improve decision-making for prioritising the on-going conservation and maintenance programmes, thus ensuring the long term survival of these monuments and buildings.

Why focus on natural hazards?

Many of the properties HES care for are situated in landscapes that are vulnerable to climate-related natural hazards. Although a number of the properties are well adapted to everyday weather events, changes in the climate are pushing the properties into uncharted territory, with many

now facing challenges they were never designed to deal with. This is why this research is so crucially important.

By screening for current natural hazards we have been able to generate a set of climate-related risks across our entire Estate of 335 properties. Although these do not explicitly include climate change risk, it does inform us about sites that are likely to be most at threat from climate change – and enable better use of resources which can be targeted to particular priority sites.

We decided that this screening approach was sufficient for our needs in our current risk assessment process, and it was more beneficial to focus further effort on the investigation of specific properties. At the property-level we will be able to include a wider range of climate impacts, more detailed information about the property, and the knowledge and expertise of those involved with site management.



Conservation work underway at Eddo Castle, one of HES's 335 Properties in Care (©Historic Environment Scotland).

Historic Environment Scotland has presented this information as part of the Adaptation Learning Exchange (ALE). The ALE was set up by Adaptation Scotland to help organisations plan for the impacts of a changing climate.

ASSESSING CLIMATE CHANGE RISKS AND OPPORTUNITIES



Case study: Scottish Water and Mott MacDonald

This case study explores how Scottish Water undertook an update of its strategic Climate Change Risk Assessment (CCRA) for assets, to refine the understanding of future climate-related risks and to identify knowledge gaps for further research.



Where does this fit in the adaptation process?

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View the adaptation process on our website and access tools such as the Five steps to managing your climate risk. www.adaptationscotland.org.uk

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Why revisit the risk assessment?

Scottish Water conducted a CCRA in 2011-2012. An update was necessary to incorporate new climate impact research and resources developed by the water industry. It also provided an opportunity to include an updated asset base in the assessment.

The process

The work was undertaken over a six-month period (2015-2016) by embedding a consultant from Mott MacDonald into the team at Scottish Water – bringing in expertise, but also integrating this into the organisation.

This was particularly important because the most substantial component of the work involved engaging with key staff across Scottish Water.

Scottish Water have a large and diverse asset base subject to a wide range of climate-related risks. This strategic CCRA focused on risks to asset type, rather than to individual assets. The approach chosen was largely qualitative, synthesising key industry guidance and stakeholder knowledge to arrive at a best estimate of risk. Adaptation Scotland's 'Five steps to managing your climate risk' risk assessment template was used to inform the methodology, in addition to the UK Water Industry's research guidance.



Backwater Reservoir, Angus, during the drought

Scottish Water has presented this information as part of the Adaptation Learning Exchange (ALE). The ALE was set up by Adaptation Scotland to help organisations plan for the impacts of a changing climate.

Examples

DEVELOPING A CITY WIDE ADAPTATION VISION AND ACTION PLAN



Case study: Edinburgh Adapts

THE EDINBURGH PARTNERSHIP

Adaptation is a challenge where we really are all in it together. The Edinburgh Adapts project has created a city wide adaptation vision and action plan that is inclusive, innovative and responsive to local priorities. The project focused on identifying actions that organisations can't implement on their own and that need a joined up response from two or more partners.

Where does this fit in the adaptation process?

The adaptation process consists of 5 stages to help you get started with adaptation, understand and assess the impacts of current and future climate change, identify your significant climate risks, and prioritise your adaptation options. It will also help you to implement your adaptation actions, evaluate them, and continuously monitor and review your work. This case study sits within stage 4 of the process with the Edinburgh Adapts partners developing a set of ambitious adaptation actions.



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Who was involved?

The Edinburgh Adapts project began in March 2015 as a joint initiative between the Edinburgh Sustainable Development Partnership (ESDP) and Adaptation Scotland. This focus on partnership working was built into the project from the start. The ESDP formed a dedicated Task Group that included representatives from the City of Edinburgh Council, Adaptation Scotland, Edinburgh World Heritage, Transition Edinburgh South, Edible Edinburgh, Historic Environment Scotland and the Edinburgh Centre for Carbon Innovation. The group brought valuable knowledge and expertise and helped design the engagement process.

The process

1. Developing a shared vision

Creating a shared action plan and vision for Edinburgh that was truly owned by the city required reaching out to key organisations, finding out what risks and opportunities mattered most to them, and helping them work together to design shared actions to address the challenges identified. The Task Group invited organisations across the city to submit potential actions and co-designed a programme of five workshops to discuss, review and agree shared actions.



The City of Edinburgh Council has presented this information as part of Adaptation Scotland's partnership projects. The partnership projects break down traditional institutional barriers, and get the key players in the room so they can create adaptation action plans that are inclusive, innovative and responsive to local priorities.

4 Report and implement

- Implement, and collate and report your adaptation arrangements internally and externally.

5 Monitor and review

- Establish a process for monitoring and reviewing your adaptation arrangements.

Examples



- Adapting Edinburgh's world heritage site
- Surface water management projects
- Adapting the Forth Road Bridge
- Climate Ready Clyde

Are there any questions?



How does this align with the Public Bodies Duties Climate Change Reports?

4 Adaptation

Assessing and managing risk

4a Has the organisation assessed current and future climate-related risks?

If yes, provide a reference or link to any such risk assessment(s).

4b What arrangements does the organisation have in place to manage climate-related risks?

Provide details of any climate change adaptation risk management procedures, strategies, action plans and any adaptation policies and actions included across policy areas.

Taking action

4c What action has the organisation taken to adapt to climate change?

Include details of work to increase awareness of the need to adapt to climate change and build the capacity of staff and stakeholders to assess risk and implement action.

Public Bodies Reports

Section 2: Governance, Management and Strategy

- 2a How is climate change governed in the body?
- 2b How is climate change action managed and embedded in the body?
- 2c Does the body have specific climate change mitigation and adaptation objectives in its corporate plan or similar document?

Public Bodies Reports

Past weather impacts								Affected services and communities	
Weather variable	Description of impact	Location	Date	Consequences (costs, service disruption, injury, reputation)	Critical thresholds	Actions / plans / policies put in place to reduce this impact	Evidence of the effectiveness of these actions / plans / policies	Responsible department/ agency	Services/ communities that were affected
Frost/ice	Sub-zero ground temperatures lead to a series of road incidents	Dundee	Dec 2012	Council worker injured leading to reputational consequences; wall needing repaired – unforeseen costs	N/A	Safe winter driving plan introduced	Number of winter weather driving incidents has decreased	Transport and roads; Police	N/A

3

Public Bodies Reports

Assessing future
climate change risk

Weather or climate impacts			2013			2013			2020s			2020s		
Climate hazard	Threat or opportunity	Consequences	Inherent risk			Critical thresholds	Controls	Residual risk	Inherent risk			Residual risk		
			Likelihood	Consequence	Risk rating				Likelihood	Consequence	Risk rating	Likelihood	Consequence	Risk rating
Heavy rainfall	Flooding blocks key roads and prohibits access to hospital	Emergencies diverted to another hospital; medical supplies delayed; loss of life; reputational impact	2	4	8	Major road closures must be limited to 2 hours	Road management contingency planning; emergency planning	2 3 6	3	4	12	3	3	9
High temperature	Buildings overheat causing discomfort and reduced productivity	Health and safety impacts; Reputational impacts	1	3	3	Internal temperature must not exceed 28°C	Risk not currently considered	1 3 3	2	3	6	2	3	6
High temperature	Buildings overheat causing problems in server rooms	Disrupted services; Loss of critical data	1	3	3	Server room temperature must not exceed 27°C and relative humidity level must not exceed 60%	Risk not currently considered	1 3 3	2	3	6	2	3	6
High winds	Trees blown on to key road and rail links causing danger to staff and delays to the delivery of essential	Financial losses; Reputational damage; Injury / loss of life	3	4	12	Staff should refrain from driving when winds exceeding 70mph are forecast	Driver training; Speed limits enforced; High-risk trees identified	2 4 8	3	4	12	3	3	9

Same controls as 2013

Section 4: Adaptation

- 4b. What arrangements does the body have in place to manage climate-related risks?
- 4c. What action has the body taken to adapt to climate change?

Public Bodies Reports

Objective N1 - Understand the effects resulting from climate change and their impacts on the natural environment

No.	Policy and description	How will this help deliver the Objective?	Who will deliver?
N1-2	Increase understanding of the implications of climate change for nature through data gathering, analysis and research.	Continuing research and data gathering is needed to detect, quantify and understand the impacts of climate change on nature to inform adaptation policy and management.	Scottish Government, ClimateXChange, BICCO-Net, Universities, Scottish Natural Heritage, Forestry Commission Scotland, Scottish Environment Protection Agency.

Public Bodies Reports

Section 4: Adaptation

- 4e. What arrangements does the body have in place to review current and future climate risks?
- 4f. What arrangements does the body have in place to monitor and evaluate the impact of the adaptation actions?

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