



Adaptation Part 1: Definitions, the process and getting started

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Adaptation Scotland

Overview

- The Adaptation Scotland programme
- Scotland's changing climate
- What does this mean for Universities and Colleges?
- What is adaptation?
- The adaptation process



About us



Providing guidance and support to help organisations, businesses and communities in Scotland prepare for, and build resilience to, the impacts of climate change.

- Developing tools and guidance;
- Raising awareness about adaptation;
- Enabling and supporting partnership working; and
- Delivering training events.



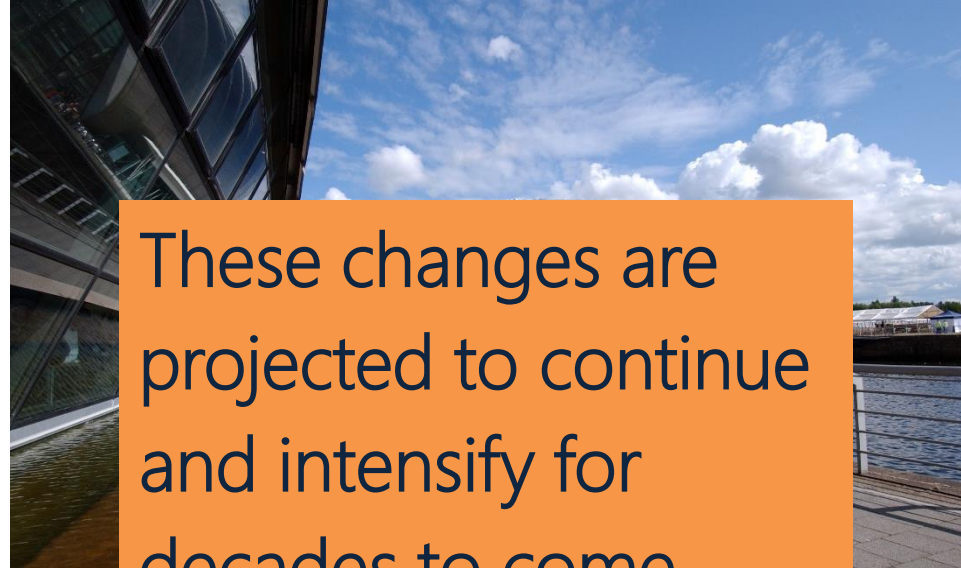
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<http://www.adaptationscotland.org.uk>

Scotland's climate is already changing

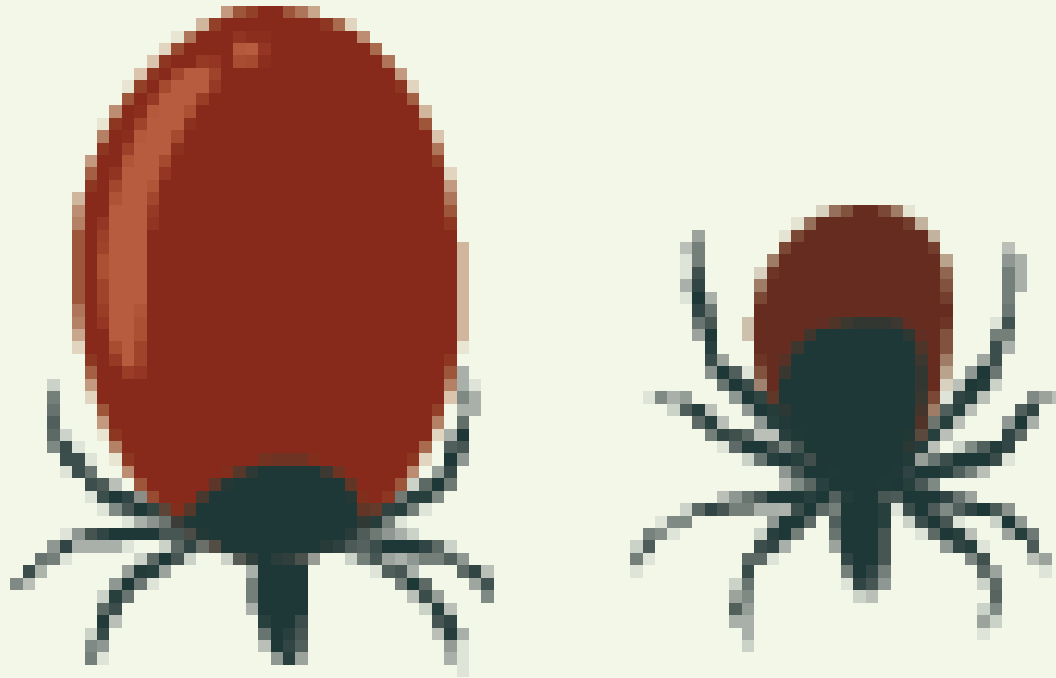
- Increases in winter rainfall
- Sea level rise
- Increased temperatures across all seasons
- More severe weather events
- Reduced frost and snow



What does this mean for Scotland?



What does this mean for Scotland?



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What does this mean for Universities and Colleges?

Systems: Telecoms, transport, energy, water;

Assets: Estates and buildings



Assets: Estates and Buildings

- These assets also have huge potential to help us cope with climate change:
- Multi functional green spaces provide additional flood storage
- Greenspaces in cities provide space for nature to adapt, slow the flow of water, and provide cooling during warmer, summer weather.



Braid Burn Flooding, Inch Park, March 2010



What does this mean for Universities and Colleges?

Systems: Telecoms, transport, energy, water;

Assets: Estates and buildings

Services: Business continuity, research, innovation and teaching opportunities

Global impacts with local consequences

People: Health and wellbeing.



People: Health and wellbeing

Student > News

Students evacuated from seafront Aberystwyth University accommodation after storms batter Welsh coast

Exams had been due to start today

Sophie Murray-Morris | @smurraymorris | Monday 6 January 2014 | 0 comments



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Responses to climate change

Mitigation - Reducing greenhouse gas emissions in order to slow or stop global climate change.

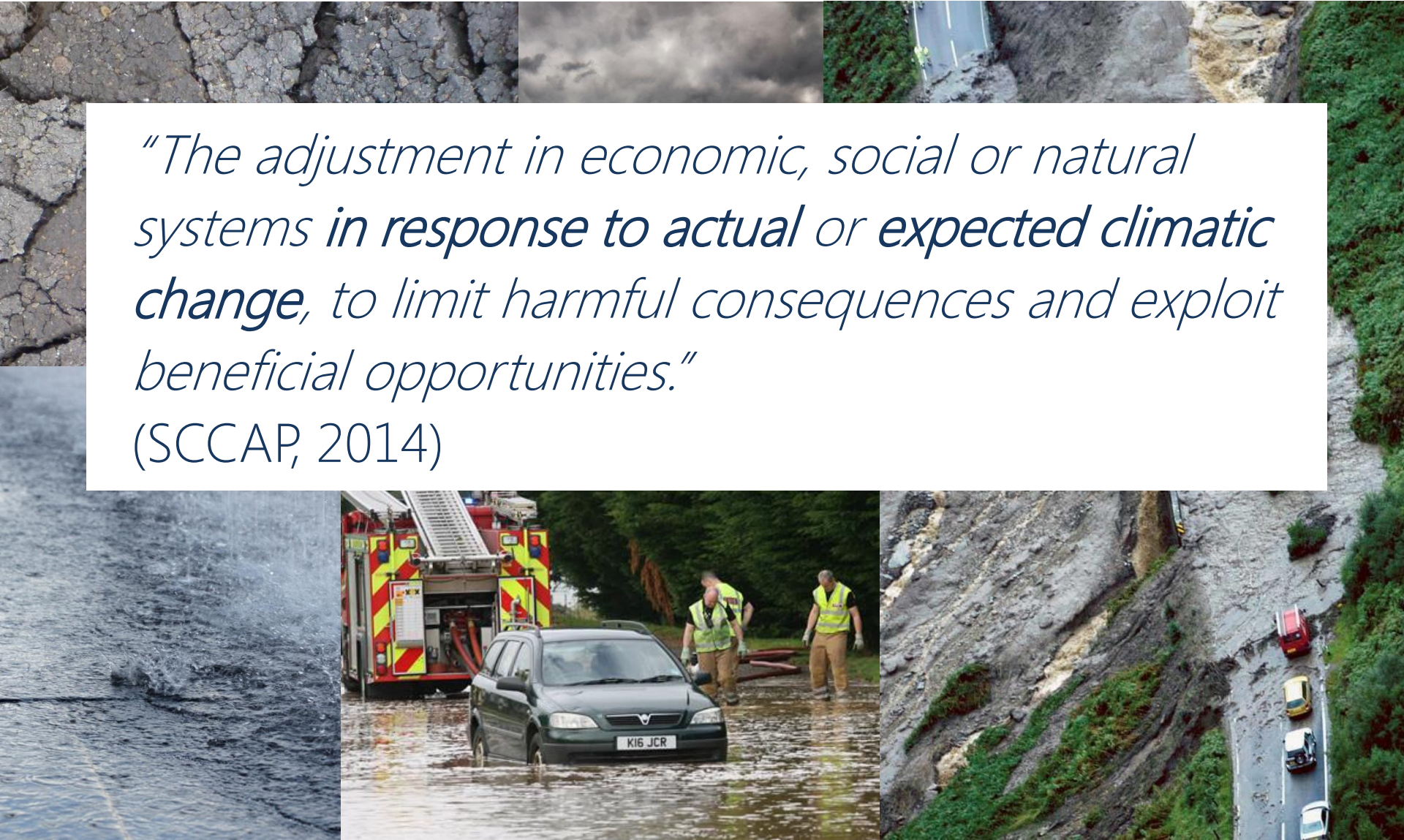
Adaptation - Actions to reduce the vulnerability of a system to the negative impacts of climate change.



Adaptation

"The adjustment in economic, social or natural systems in response to actual or expected climatic change, to limit harmful consequences and exploit beneficial opportunities."

(SCCAP, 2014)



Policy and legislative drivers

- ❖ The Climate Change (Scotland) Act 2009 places duties on Scottish Ministers and public bodies to act in the way best calculated to help deliver the Scottish Climate Change Adaptation Programme.
- ❖ From 2016, it is mandatory to report on climate change adaptation progress.



How do you adapt?

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

1 Define the challenge

- Identify aims and objectives
- Establish governance of your adaptation arrangements
- Find contacts working on adaptation
- Embed adaptation-related risk on your Risk Register
- Build the business case

OUTPUT: Adaptation embedded on the risk register and developed a business case

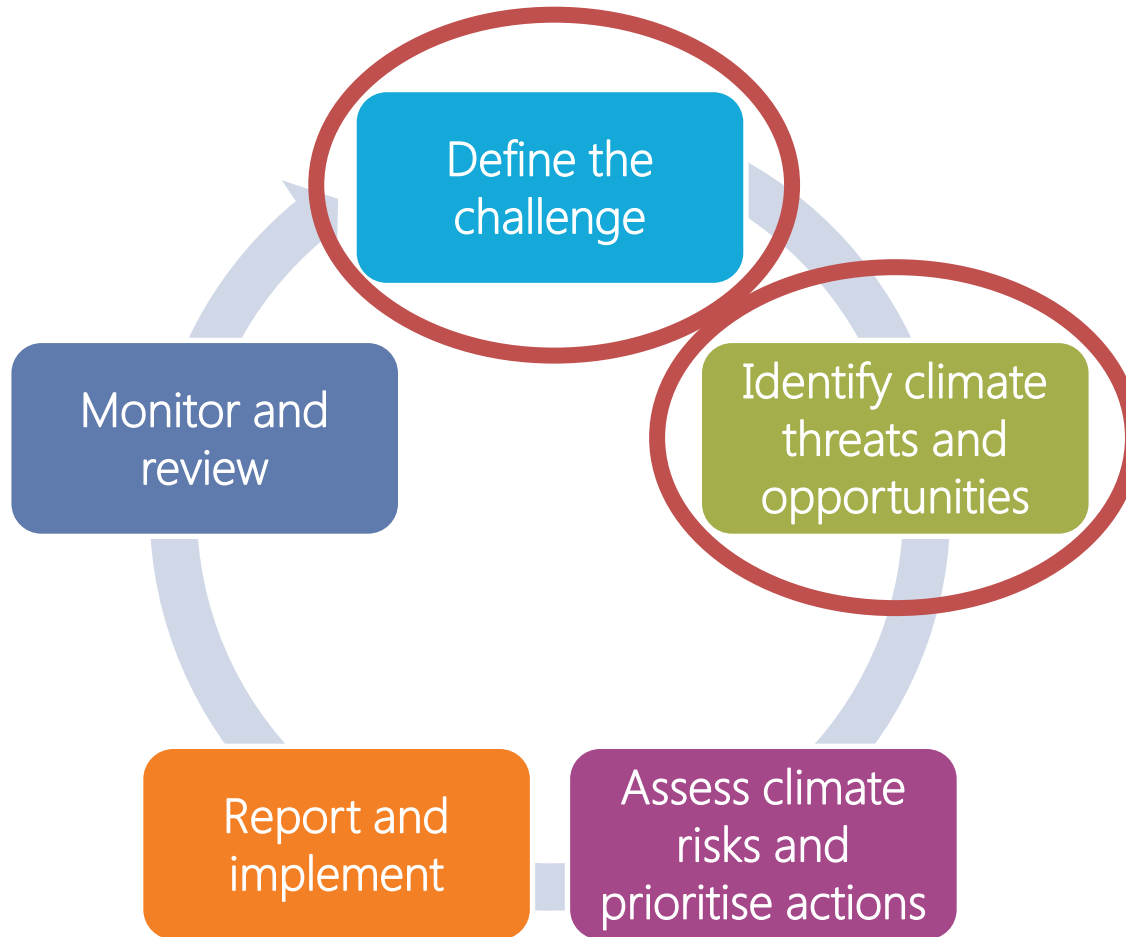
2 Assess climate threats and opportunities

- Understand recent and future climate trends



are most vulnerable to climate change

Getting started





University of
St Andrews | FOUNDED
1413 |

Climate Change Adaptation actions at St Andrews

David Stutchfield
Energy Officer

Overview of Adaptation Actions To Date

1. Flood Risk Assessments of key assets:
 - North Haugh area
 - Guardbridge
 - East Sands area
2. Worked through the Climate Change Assessment Tool (CCAT)
3. Evaluated Risk Register + added climate risk
4. Ran climate threat and opportunity assessment workshops with Estates & Residential Business Services to start developing initial Adaptation Plans

1. Flood Risk Assessments St Andrews Town, North Haugh



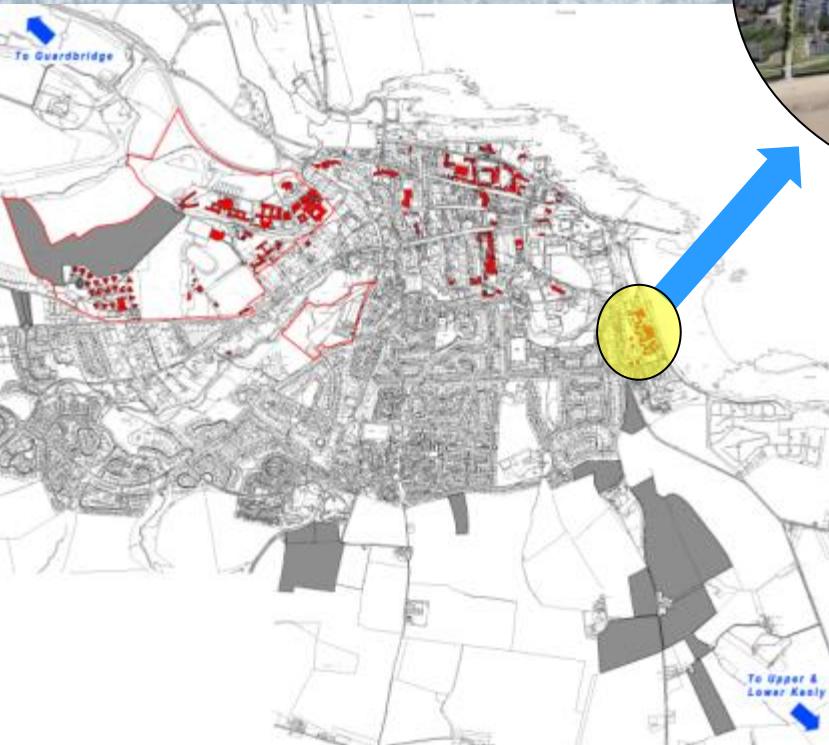


Guardbridge

- Sea wall is part of the Fife Coastal Protection Programme
- University's Scottish Oceans Institute research interest in estuary and climate science



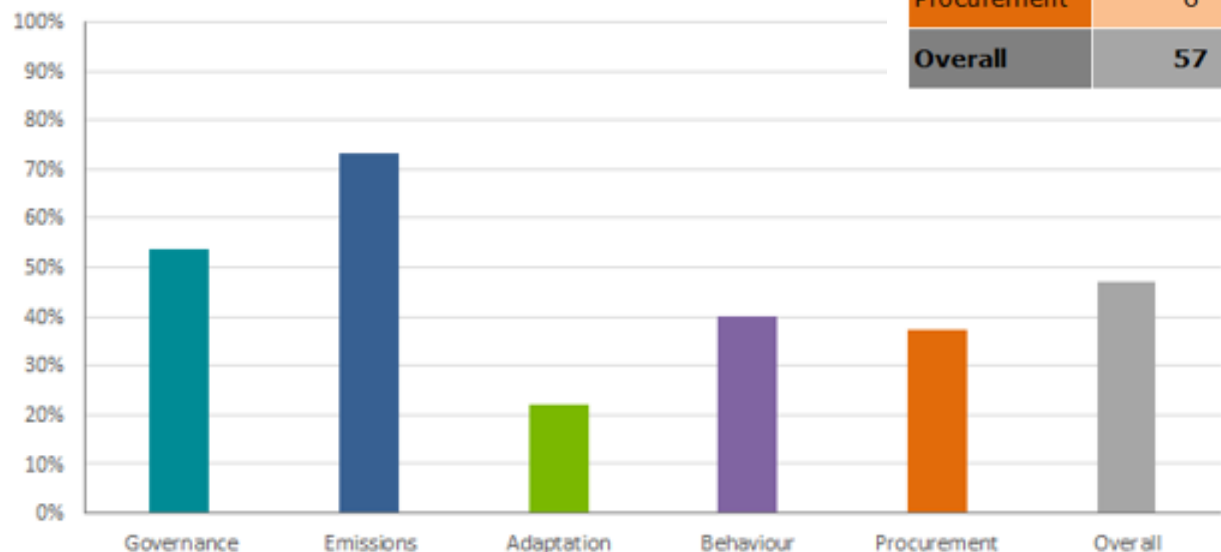
St Andrews Town, East Sands



2. Worked through the Climate Change Assessment Tool (CCAT)

Overall results - Run 1				
	Organisation score	Total score available	Percentage score	Traffic light assessment
Governance	15	28	54%	54%
Emissions	22	30	73%	73%
Adaptation	6	27	22%	22%
Behaviour	8	20	40%	40%
Procurement	6	16	38%	38%
Overall	57	121	47%	47%

University of St Andrews (Run 1)



www.resourceefficientscotland.com/resource/resource-efficient-scotland-climate-change-assessment-tool-ccat

Results of the CCAT

Results for Adaptation

Question number	Question			
3a	Have you defined the challenges of Climate Change adaptation?	2 out of 5		Climate change on Risk Register, no monitoring of effects of climate change on University operation
3b	Have you assessed climate change threats and opportunities?	1 out of 5		No workshops organised, but perception of climate change trends, no SWOT
3c	Have you assessed climate change risks and identified actions?	0 out of 3		No risk assessment or action plans
3d	Which specific risk areas have you considered?	0 out of 6		BREEAM covers some of these points, but no formal University policy
3e	Have you reported and implemented your adaptation arrangements and do you have processes for monitoring and review?	0 out of 5		No process to do this (now required under our Scottish Climate Change Reporting)
3f	Has your organisation identified its responsibilities under the Scottish Climate Change Adaptation Programme (SCCAP) objectives?	0 out of 4		Detailed Objectives from the Scottish Climate Change Adaptation Programme

3. Added climate risk to Risk Register

- Increased insurance costs
- Power outages
- Major travel delays – getting to and from University and around world
- Harm to staff and students away from St Andrews
- Widespread staff absence
- Physical damage to buildings from flooding – now converted into a Climate Risk

4. Ran climate threat and opportunity workshops

- Two workshops with Estates and Residential Business Services
- Objectives:
 - Raise awareness of adaptation with senior management,
 - Identify where climate change will affect the operation of the unit
 - Identify what data should be gathered to create a department adaptation report and action plan
 - Understand what resources will be required to take each of these actions forward and who the key contacts will be.

Next Steps

- Collate information from two workshops
- Start to develop two adaptation plans for Estates and Residential Business Services
- Mandatory Public Bodies Climate Change Reporting – Nov 2015
- Identify processes to do a Local CLimate Impacts Profile (LCLIP).
 - Where will information come from? i.e. Fife Council, Dundee Council, Tay Bridge, Forth Bridge, ScotRail, press clippings, staff memory.

Ideas for you to get started

- Talk to your colleagues and managers about what you have learnt about adaptation
- Check your risk register for climate risks
- Work through the adaptation section of the CCAT tool
- Familiarise yourself with the climate change information





Thank you.
Are there any questions?

Adaptation
Scotland
supporting **climate change** resilience

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