Adaptation Scotland

supporting climate change resilience

Edinburgh Centre for Carbon Innovation

26 August 2015

Adaptation Learning Exchange

Workshop 2: Values-based communications

Sophie Turner

Joseph Hagg

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

Overview

10:15 – 10:20	**Overview and aims of the day**
10:20 – 10:40	**Three minute progress updates**
10:40 – 11:20	**Adaptation tasks and challenges**
11:20 – 11:25	BREAK
11:25 – 12:15	**Adaptation in action**
12:15 – 13:00	LUNCH
13:00 – 17:00	**Values-based communications**

Workshop 2: Aims

- To encourage further collaboration and identify
  - who is at the same stage as you?
  - who has the same goals as you?
  - who has already done what you are trying to do?
- To help you think differently about communicating on climate change adaptation
- To motivate and inspire you

Ground rules

- Speak one at a time
- There are no silly questions
- Share your experiences, knowledge and ideas
- Give constructive feedback
- Make the most of the opportunity to work together and learn from each other

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10:20

Progress updates from the ALE Introductory programme members

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Where do you see yourself in the Five Steps guidance?

1. Define the challenge
    - Identify aims and objectives
    - Build the business case
2. Assess climate threats and opportunities
    - Weather impacts table/ LCLIP
3. Assess climate risks and identify actions
4. Report and implement
5. Monitor and review

CLIMATE CHANGE ADAPTATION

- **Climate Change Assessment Tool** workshop planned for 25th August which will include working through the Adaptation section.
- **Weather impacts profile** – discussions with University of Dundee to recruit student intern to take forward.
- Discussion/briefing with Council's new **Elected Member champion** for climate change.
- **Elected Members briefing session** scheduled for 17th September (post-recess).
- Attended SSN workshop on 2nd July on Adaptation section of **mandatory reporting.**

Dundee City Council www.dundeecity.gov.uk CHANGING FOR THE FUTURE

NHS Lanarkshire Climate Change Adaptation August 2015

Marie Porteous
Head of Sustainability & Environment Manager

NHS Lanarkshire

- Climate Change Impact Assessments
  - Desktop review on understanding climate risks developed in partnership with Consultants employed by Health Facilities Scotland.

NHS

	Patient Demand	Vulnerable Communities	Business Continuity
Current Climate Threat	- Snow/ice weather increased admissions to A&E from trips and falls, broken bones, longer hospital stays and theatre requirements[23] - Higher number of patients admitted to A&E from dehydration during prolonged hot weather[24] - Acute sites and fracture clinics have experienced increased patient demand during snow/icy weather and a high demand for winter beds[25] - Flooding in the area has caused bacteria in water courses - Excess winter deaths - Potential for cold weather to increase risk to cardiovascular/respiratory symptoms - Risk of injury and death due to flooding and other extreme weather events – also mental well-being - Patients ability to access services during extreme weather events - Potential for GP peaks in demand as a result of increased patient attendance due to cold/heat/flooding[26]	- Relocation of people due to damage to housing - Increased risk of isolation to patients who are non-drivers or non-car owners, who already experience difficulties traveling to healthcare facilities - Condensation and dampness in cold homes can encourage dust mites and growth of fungi – often linked to conditions such as asthma and other respiratory problems in young children - People on low incomes may not be able to heat their homes sufficiently which could contribute to reduced resistance to respiratory disease amongst over 60s; raised blood pressure in over 60s; increased deaths from coronary thrombosis and other circulatory causes in winter	- Excessive snow may impact on waste collection services since conditions can be treacherous for operatives as well as risks from dangerous driving conditions and delays from resulting traffic - High winds in rural areas have damaged roofs and brought trees down[27] - High winds may affect waste collection sites since these may be closed resulting in vehicles being directed to alternative sites increasing cost and time - Snow and ice can result in more burst pipes than usual - Ice and snow conditions can affect public transportation and disrupt outpatients appointments and impact the staff's ability to get to work - Surface water flooding/sewerage in car parks from public sewers overflowing from high rainfall[28] - Surface water flooding leading to transport disruption which has affected deliveries and patient/staff access to clinics[29] - Prolonged periods of heavy rainfall has led to flooding of major routes, car parks, roof leaks and disruption to public transport[30] - Supply to renewable fuel could be disrupted during extreme weather events where transportation networks are closed - Closure of wider transport infrastructure (roads, rail) - If hot weather persists for more than a couple of days staff absenteeism and complaints increase[31]

NHS Lanarkshire

- Met with Resilience Planning Team / Public Health to discuss risks and get “buy in” and support from a wider team. The intention is to influence the Clinical Strategy which is currently in development.

NHS Lanarkshire

- Met with a small team to use the CCAT toolkit and tabled the Action Plan for discussion at the Board's Sustainability & Environment Group, chaired by our Executive Director (Sustainability Champion).

Progress on Adaptation

Progress (and set backs)

- Looked at CCAT tool
- CCAT questions prompted investigations
- Started right at the beginning again
- Checking all our carbon monitoring
- Prioritising having all our carbon data in new recording spread sheet
- Checking all our recording processes

Longer term planning

- New organisational structure
- I’m now in new Strategy and Policy team
- Last good few weeks refocusing of longer term objectives
- Climate is high on our team (2 of us) agenda
- Initial preparation for our next National Park Partnership Plan
- Evidence base and indicators of success

ALE Workshop 2: Glasgow City Council and adaptation planning

Sonia Milne

Sustainable Glasgow

Glasgow City Council

Our ALE Goals

- Climate Adaptation on the Corporate Risk Register
- Business Case for Climate Adaptation

What have we been up to since June?

- Business Case – briefing note to senior management
- Revisiting LCLIP
- Looking at monitoring weather events - SWIMS
- Engaging with Resilience Unit and Risk Managers

The Climate Change Adaptation Process

- **Objectives**
  - understand impacts of climate change
  - The council and its partners take action in place to adapt to climate change
  - Council works with its partners to build city wide adaptive capacity

- **Working in Partnership**
  - Climate Ready Clyde
  - Sustainable Glasgow

- **Climate Adaptation Workshops**
  - Parks and Opens Spaces
  - Public Health and Waste
  - Transport Planning and Roads

University of St Andrews | FOUNDED 1413

Climate Change Adaptation Programme

David Stutchfield
Energy Officer

Adaptation Actions To Date

Flood risk assessments of key assets

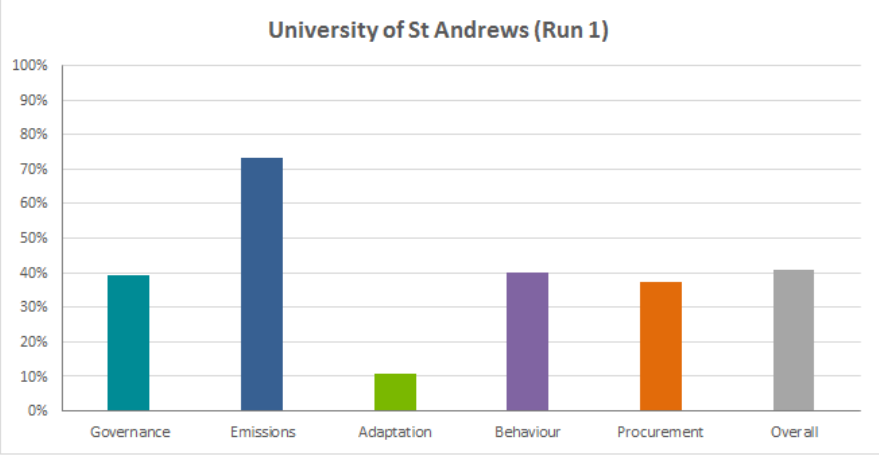
Understanding climate impacts

- Carbon footprint (including travel)

Working through Toolkit

- CCAT adaptation workshop at senior level
- Evaluated Risk Register + added climate risk
- Identifying processes to map Local Climate Impacts

Results of CCAT Tool



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

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

Next Steps

- Identify future climate vulnerability
- Identify adaptation priorities
- Respond to Climate Change Reporting Duties

1. Evaluate Local Climate Impacts – student research?
2. Start climate threat and opportunity assessment process with key stakeholders

Progress update from members

- Falkirk
- University of Strathclyde

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10:40

Adaptation tasks and challenges

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

On a post-it note, write down…

One adaptation task that you are either working on or struggling with that you would like support with.

SWOT Analysis

1. **STRENGTHS:** What is going well? What approaches have worked?
2. **WEAKNESSES:** What are the barriers to making progress? What obstacles might you face?
3. **OPPORTUNITIES:** What opportunities does this task present for your organisation?
3. **THREATS:** What are the consequences of not doing this task?

What three actions will you take away from this approach?

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11:20 – 11:25

Quick break

Adaptation Scotland

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11:25

Adaptation in action

Mairi Davies from Historic Scotland and
Fiona McLeod from the City of Edinburgh Council

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25 August 2015

HISTORIC SCOTLAND
ALBA AOSMHOR

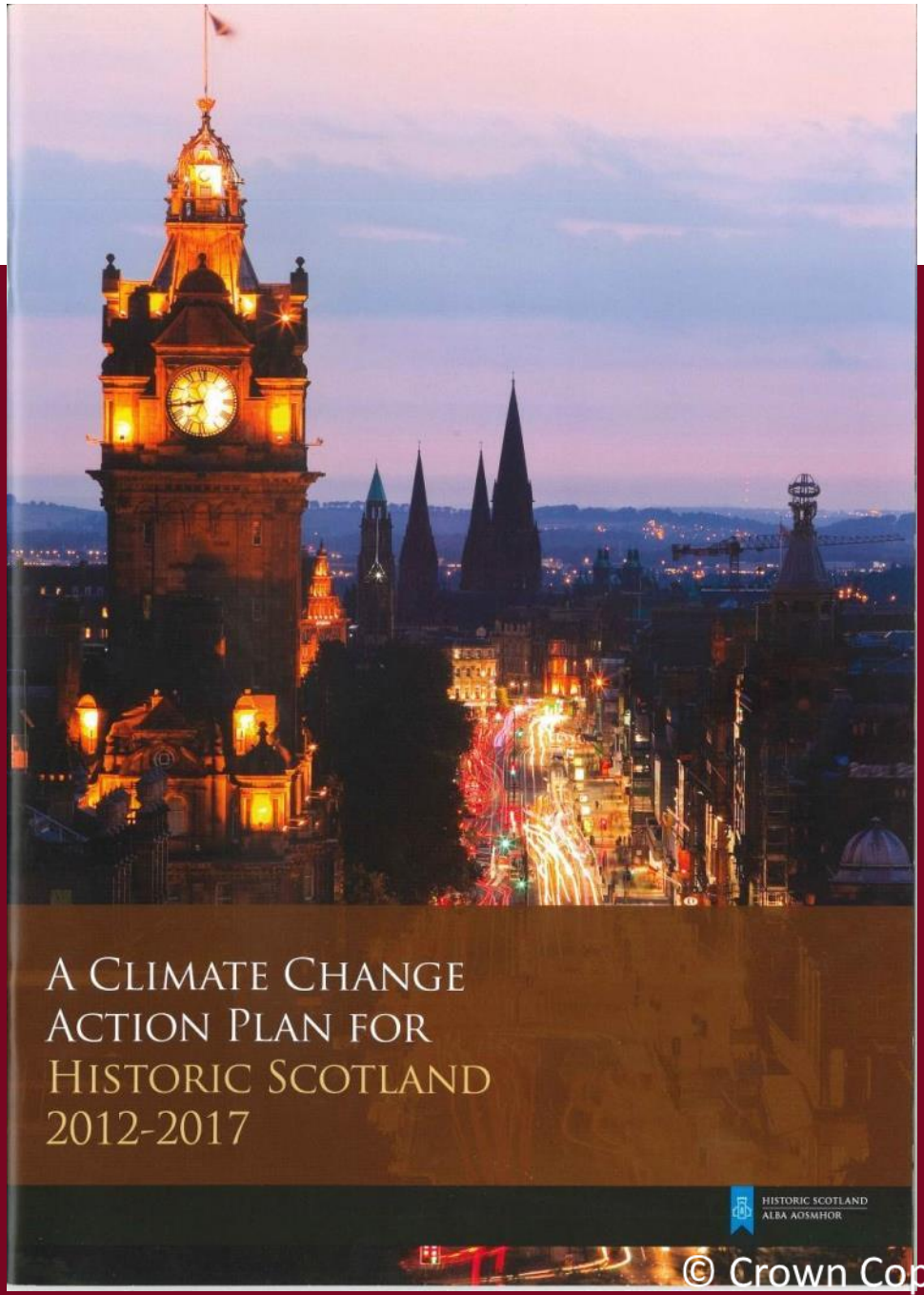
Climate Change Adaptation for Scotland's Historic Environment

Dr Mairi Davies



Historic Scotland

- Executive Agency of the Scottish Government
- Direct management of 345 Properties in Care
- Large geographical spread
- Regulatory role *(c.8000 scheduled monuments/c.48,000 listed buildings)*
- Grants *(City Heritage Trusts; Conservation Area Regeneration Schemes; Building Repair Grants; Archaeology)*
- Largest operator of paid-for visitor attractions *(3.4 million visitors in 2013/14 generating £38M income)*
- Supporting the broader historic environment: advice & guidance



HISTORIC SCOTLAND
ALBA AOSMHOR

INCREASED RAINFALL, HEAVY RAINFALL EVENTS & MILD/WET WINTERS

Built Fabric

- Increased erosion of fabric.
- Faster deterioration of asset.
- More frequent wetting and drying events.
- Saturation of masonry & exposed wallheads.
- Saturated ground reduces visitor access.
- Saturated ground susceptible to damage.
- Increased colonisation & biological growth.
- Rot to structural timbers.
- Increased humidity and mould growth to interiors.

Collections

- Increased damage from biological growth, salt crystallisation & delamination.
- Increased insect damage.
- Physical erosion of external objects.
- Increased frequency of failure of conservation treatments.
- Damage due to failure of water protection systems.

Natural Assets

- Erosion of landscapes and increased vulnerability of plantings due to saturation of ground.
- Altered species of plant communities.
- Change of habitats.

HOT DAYS/HEAT WAVES, DROUGHT & WARM/DRY SUMMERS

Built Fabric

- Insect attack (e.g. masonry bee).
- More frequent wetting and drying events.
- Pressure from increased visitor numbers.
- Structural instability from ground heave.
- Damage caused by drying of wet areas (salt crystallisation).
- Increased fire risk.
- Overheating and discomfort for occupants.

Collections

- Drying out/thermal stress; distortion & cracking of objects.
- Accelerated failure of paint systems and conservation treatments.
- Increased frequency of insect infestations.
- Increased fire risk.
- LUX & UV light damage to sensitive objects.

Natural Assets

- Drought and physical damage to plantings.
- Increased fire risk.
- Change of habitats.
- New pest and disease affecting plantings and wildlife.

HIGH WINDS

Built Fabric

- Structural damage.
- Increased erosion.

Collections

- Wind driven rain affecting internal environments.
- Structural damage causing damage to collections.
- Flooding of collections due to building breach.

Natural Assets

- Physical damage to plantings.

FLUVIAL & FLASH FLOODING

Built Fabric

- Water damage to building elements.
- Potential undermining of structures.
- Visitor access reduced to areas.

Collections

- Risk from structural damage.
- Damage caused by saturation.

Natural Assets

- Erosion of landscapes.
- Loss of species due to flooding of habitats.
- Loss/change of habitats.

COASTAL EROSION & FLOODING

Built Fabric

- Risk of loss/destabilisation of (whole or part of) asset.
- Loss of ground adjacent asset.
- Flooding damage to sites and built fabric.
- Damage to fabric from salt contamination.
- Visitor access reduced to areas.

Collections

- Threats to collections in at risk properties.
- Damage caused by saturation.

Damage from salts and other contaminants.

Natural Assets

- Risk of erosion and physical loss of landscape.
- Damage to habitats from flooding.
- Damage to species.

Climate Change impacts on built fabric, collections and natural assets for a roofed monument

INCREASED RAINFALL, HEAVY RAINFALL EVENTS & MILD/WET WINTERS

Built Fabric

- Increased erosion of fabric.
- Faster deterioration of asset.
- More frequent wetting and drying events.
- Saturation of masonry & exposed wallheads.
- Saturated ground reduces visitor access.
- Saturated ground susceptible to damage.
- Increased colonisation & biological growth.
- Rot to structural timbers.
- Increased humidity and mould growth to interiors.

Operations

- Increased maintenance cycles.
- Reprioritisation of conservation works.
- More high level works due to wallhead water penetration and storm damage.
- Access and works prevented due to increased wetness and extreme weather.
- Requirement for more specialist conservation treatments.

HOT DAYS/HEAT WAVES, DROUGHT & WARM/DRY SUMMERS

Built Fabric

- Insect attack (e.g. masonry bee).
- More frequent wetting and drying events.
- Pressure from increased visitor numbers.
- Structural instability from ground heave.

amage caused by drying of wet areas (salt crystallisation).

- Increased fire risk.
- Overheating and discomfort for occupants.

Operations

- Increased demand on services due to greater visitor numbers.
- Specialist knowledge required to deal with additional issues e.g. masonry bees, desalination techniques etc.

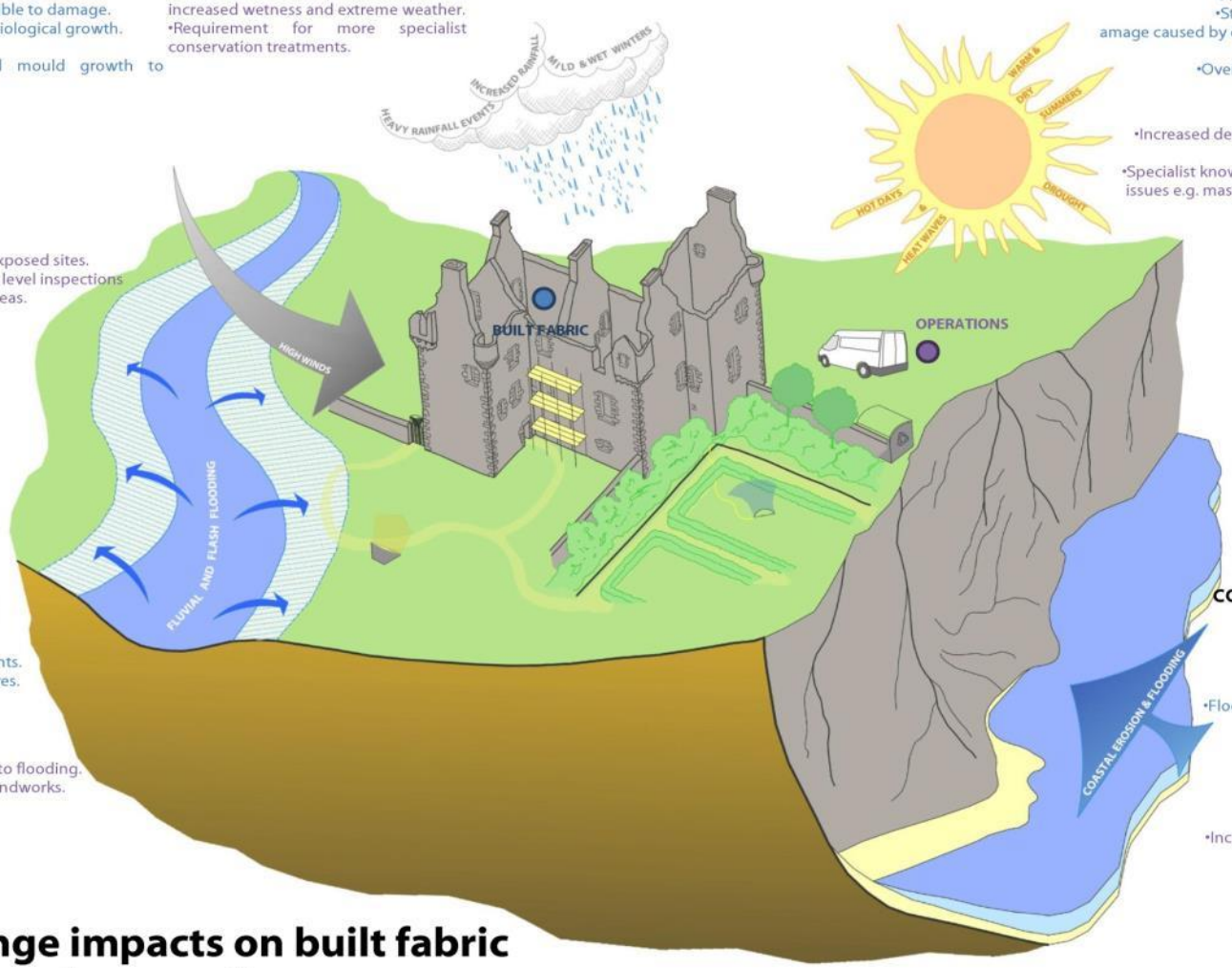
HIGH WINDS

Built Fabric

- Structural damage.
- Increased erosion.

Operations

- Increased priority of works to exposed sites.
- Increased requirement for high level inspections and work in difficult to access areas.



FLUVIAL & FLASH FLOODING

Built Fabric

- Water damage to building elements.
- Potential undermining of structures.
- Visitor access reduced to areas.

Operations

- Difficulties in accessing sites due to flooding.
- Increased need for drainage groundworks.

COASTAL EROSION & FLOODING

Built Fabric

- Risk of loss/destabilisation of (whole or part of) asset.
- Loss of ground adjacent asset.
- Flooding damage to sites and built fabric.
- Damage to fabric from salt contamination.
- Visitor access reduced to areas.

Operations

- Increased frequency of repairs to existing coastal defences.
- Requirement for rapid response following damage events.
- Potential requirement for major engineering solutions at certain sites.

Climate Change impacts on built fabric and operations for a roofless monument

INCREASED RAINFALL, HEAVY RAINFALL EVENTS & MILD/WET WINTERS

Built Fabric

- Increased erosion of fabric.
- Faster deterioration of asset.
- More frequent wetting and drying events.
- Saturation of masonry & exposed wallheads.
- Saturated ground reduces visitor access.
- Saturated ground susceptible to damage.
- Increased colonisation & biological growth.
- Rot to structural timbers.
- Increased humidity and mould growth to interiors.

Below Ground Archaeology

- Physical erosion and landslip.
- Saturated ground leading to poaching.
- Changes to hydrology and conditions of preservation, leading to deterioration of deposits.

Natural Assets

- Erosion of landscapes and increased vulnerability of plantings due to saturation of ground.
- Altered species of plant communities.
- Change of habitats.

HOT DAYS/HEAT WAVES, DROUGHT & WARM/DRY SUMMERS

Built Fabric

- Insect attack (e.g. masonry bee).
- More frequent wetting and drying events.
- Pressure from increased visitor numbers.
- Structural instability from ground heave.

amage caused by drying of wet areas (salt crystallisation).

- Increased fire risk.
- Overheating and discomfort for occupants.

Below Ground Archaeology

- Erosion from increased visitor numbers.
- Drying/shrinkage of soils.
- Changing soil conditions threatening preservation.

Natural Assets

- Drought and physical damage to plantings.
- Increased fire risk.
- Change of habitats.
- New pest and disease affecting plantings and wildlife.

HIGH WINDS

Built Fabric

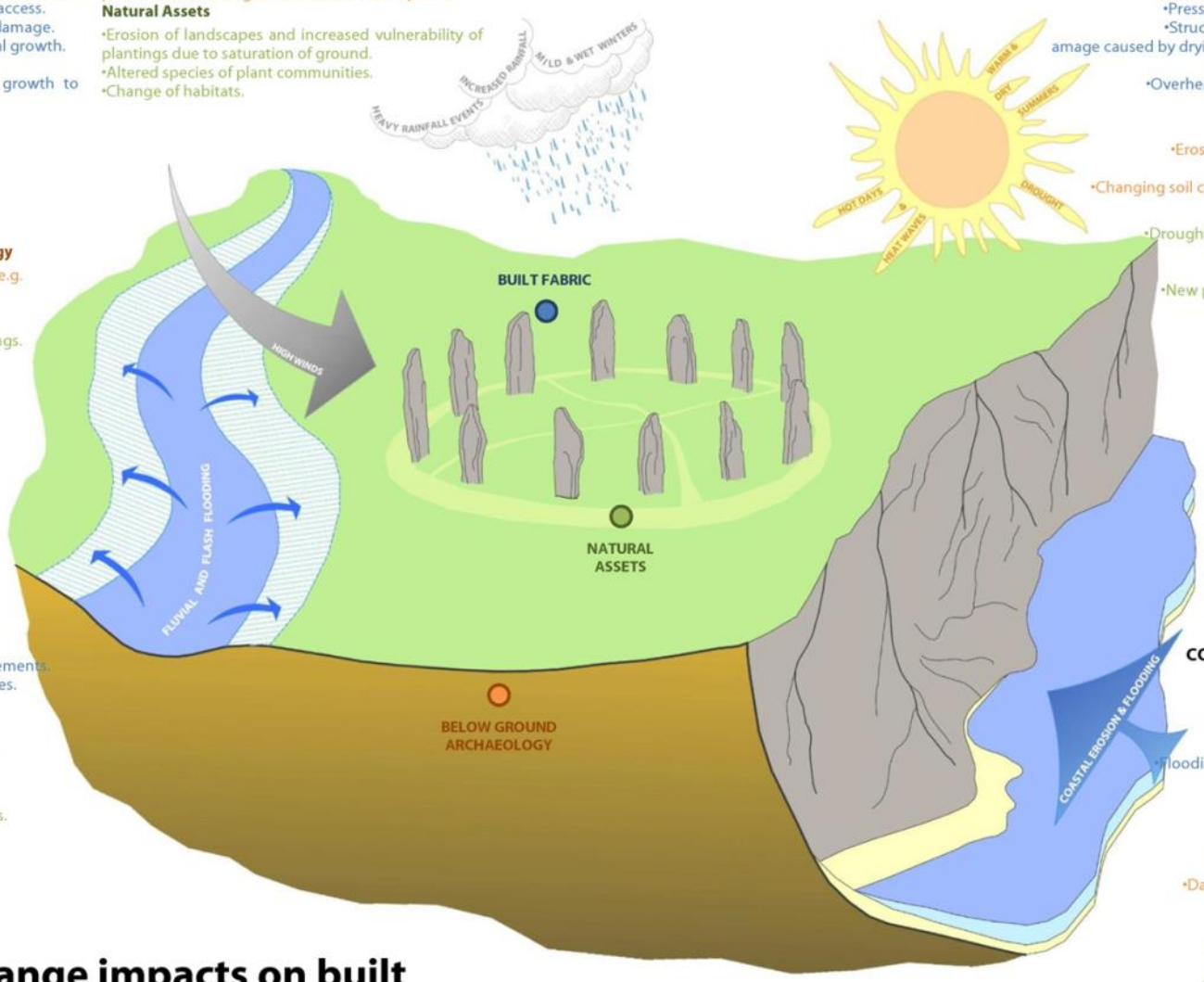
- Structural damage.
- Increased erosion.

Below Ground Archaeology

- Erosion of landscape (e.g. dunes).

Natural Assets

- Physical damage to plantings.



FLUVIAL & FLASH FLOODING

Built Fabric

- Saturation damage to building elements.
- Potential undermining of structures.
- Visitor access reduced to areas.

Below Ground Archaeology

- Risk of physical damage and loss.

Natural Assets

- Erosion of landscapes.
- Flooding of burrows/ground nests.
- Loss/change of habitats.

COASTAL EROSION & FLOODING

Built Fabric

- Risk of loss/destabilisation of (whole or part of) asset.
- Loss of ground adjacent asset.
- Flooding damage to sites and built fabric.
- Damage to fabric from salt contamination.
- Visitor access reduced to areas.

Below Ground Archaeology

- Risk of physical damage and loss.
- Damage from changing conditions of preservation.

Natural Assets

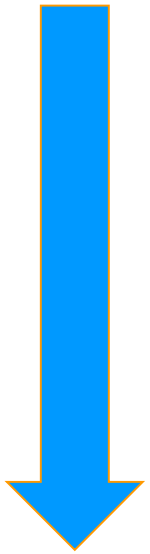
- Risk of erosion and physical loss of landscape.
- Damage to habitats from flooding.
- Damage to species.

Climate Change impacts on built fabric, archaeology and natural assets

Conservation approaches to adapt to the effects of climate change at historic sites:

- Conservation maintenance
- Conservation repairs
- Improved conservation techniques
- Adaptive (proactive) conservation
- External Protection
- Heritage Relocation
- Restoration
- Managed Loss

LEAST INTERVENTION



MOST INTERVENTION

HISTORIC SCOTLAND
ALBA AOSMHOR

HISTORIC SCOTLAND
ALBA AOSMHOR

Many problems are due to lack of maintenance

HISTORIC SCOTLAND
ALBA AOSMHOR

Adaptive (proactive) conservation

External Protection: Coastal Erosion

Fort George

HISTORIC SCOTLAND
ALBA AOSMHOR

HISTORIC SCOTLAND
ALBA AOSMHOR

Coastal Erosion

Castle Sween

Large concrete buttresses have been constructed to stabilise the rock where the cliff has been undermined by wave action

Relocation

3000 year old Meur burnt mound in Sanday, at risk of total destruction by coastal erosion.


© SCAPE

Work Goes On

- **SCOTTISH CLIMATE CHANGE ADAPTATION PROGRAMME: ACTIONS FOR HISTORIC SCOTLAND include:**

- **POLICY B1-2: Undertake research to identify resilience measures for heritage and traditional buildings:**
- **(i) Thermal performance and energy efficiency upgrades**
- **(ii) Physical effects on buildings of changing weather**
- **(ii) Quantification of heritage assets at risk, including coastal erosion and flooding**

- **POLICY B2-4: Implement HS Climate Change Action Plan**

- **POLICY B2-5: Joint agency climate change action**

- **POLICY B3-1: Building Regs Guidance**

- **Building Resilience for Communities (Edinburgh Adapts)**
- **Assessing the Impacts of Climate Change to Archaeology in Scotland**
- **Strategic Partnership Working etc**

Thank you for your attention!

Dr Mairi Davies, Climate Change Manager:
mairi.davies@scotland.gsi.gov.uk

Dr Ewan Hyslop, Head of Sustainability, Research and Technical Education:
ewan.hyslop@scotland.gsi.gov.uk

HS Climate Change Team mailbox:
hs.climatechange@scotland.gsi.gov.uk

Climate Change blog at:
http://climatechangeblog.historic-scotland.gov.uk

Online Technical Resources at:
http://conservation.historic-scotland.gov.uk/

Facilitated Discussion…

What are the links to the work you are undertaking? Are there ideas / lessons from this? Do you have suggestions for the speaker?

What challenges do we face in seeking to do something different? Are there lessons from what you've just heard?

Edinburgh Adapts

Our Adaptation journey

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Introduction

Presentation will cover

- Drivers for adaptation
- Tools and resources used
- Edinburgh Sustainable Development Partnership
- Resilient Edinburgh Adaptation Framework
- Edinburgh Adapts

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Drivers

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The Climate Change (Scotland) Act 2009

The Act introduces ambitious, world-leading climate change legislation.

The Act places a statutory duty on public bodies, including the Council, to act in a way "**best calculated to deliver any statutory adaptation programme**".

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Sustainable Edinburgh 2020

Approved by the City of Edinburgh Council in 2011

By 2020 Edinburgh will have

"Adapted to the unavoidable impacts of climate change in partnership with key stakeholders and local communities."

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Tools and Resources

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supporting climate change resilience

Tools and Resources

- Adaptation Scotland's Local Authority Workbook used to build initial risk assessment and identify strategic challenges and opportunities
- Local Climate Impact Profile (LCLIP):
  - identified Edinburgh's key vulnerabilities to severe weather
  - helped assess what future climate change could mean for the city
  - Verified through Council Committee reporting and meetings with Council departments and affected services

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Governance

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Resilient Edinburgh Adaptation Framework

- Adaptation key priority in Sustainable Edinburgh 2020
- Scope of Framework citywide
- Built on the results of the LCLIP, predicted trends and observed impacts
- Identified the strategic challenges and opportunities
- Developed and communicated through internal interviews, workshops and Council wide consultation
- Wider citywide consultation undertaken
- Promoted internally and citywide

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Resilient Edinburgh
Climate Change Adaptation Framework

- Approved by the City of Edinburgh Council in October 2014
- Endorsed by the Edinburgh Sustainable Development Partnership in November 2015
- Includes high-level strategic actions
- Citywide adaptation action plan to be developed from these actions

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supporting climate change resilience

Edinburgh Sustainable Development Partnership (ESDP)

- Citywide sustainability partnership established in December 2013
- Part of the Edinburgh Partnership family
- Adaptation identified as a key work priority
- Task Group formed to develop the Adaptation Action Plan

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Adaptation Scotland
supporting climate change resilience

Our priority actions

governance

built environment

natural environment

transport

social

Edinburgh Adapts

business

communities

communications

resilience planning

research

environmental Health

Resilient Edinburgh - Edinburgh Adapts

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The Edinburgh Sustainable Development Partnership (ESDP) is part of the Edinburgh Partnership. ESDP is working to ensure that Edinburgh adapts to the unavoidable impacts of climate change.

Adaptation Scotland
supporting climate change resilience

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

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Edinburgh Adapts - Project aims

Edinburgh Adapts will:

- Develop a shared citywide adaptation action plan;
- Build the capacity of ESDP members to increase resilience, adapt to climate change and comply with the Public Bodies Climate Change Duties;
- Create a shared vision of a climate ready Edinburgh, to act as a guide to future adaptation planning.

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Edinburgh Adapts – The Process

- **Step 1: Mar 2015**

Project endorsed by ESDP members

- **Step 2: Mar-June 2015**

Set up the Adaptation Task Group

- **Step 3: Jun – Aug**

Plan three engagement workshops

- **Step 4: Sept – Dec 2015**

Run the workshops

- **Step 5: Jan 2016**

Publish the Action Plan and share lessons learned

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Edinburgh Adapts - Project Outcomes

By the end of the project we will have:

- Created an adaptation action plan that reflects the priorities of the ESDP members, and is jointly owned and implemented;
- Created a shared vision of a climate ready Edinburgh;
- Achieved the timeline commitments set out in the Resilient Edinburgh Framework and reached Stage 5 in the Mayors Adapt action line.

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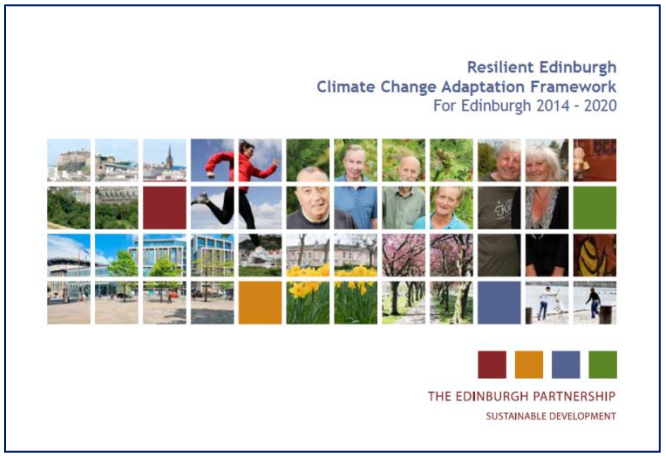
EU Mayors Adapt

Joined January 2015

- Our priority is to increase local resilience to Edinburgh's changing climate and reduce the potential impacts of climate change on our citizens.
- We need to learn from other cities in the Mayors Adapt initiative.
- We want to share our experience and best practice.



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Questions & Contact Information

- For more information on climate change adaptation in Edinburgh please contact Fiona Macleod via fiona.macleod@edinburgh.gov.uk and James Garry via james.garry@edinburgh.gov.uk

- For more information on Adaptation Scotland please contact: Anna Beswick via anna@sniffer.org.uk and David Macpherson via david@sniffer.org.uk

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Facilitated Discussion…

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12:15 – 13:00

Lunch

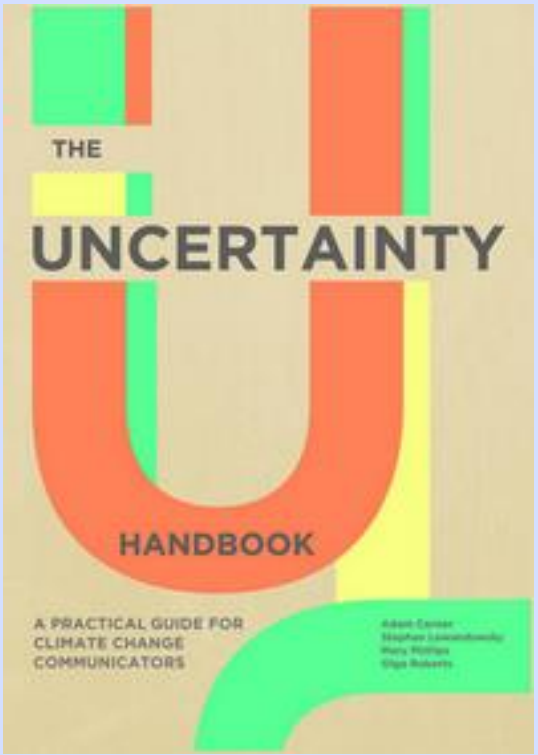
Adaptation Scotland is a programme funded by the Scottish Government and delivered by Sniffer

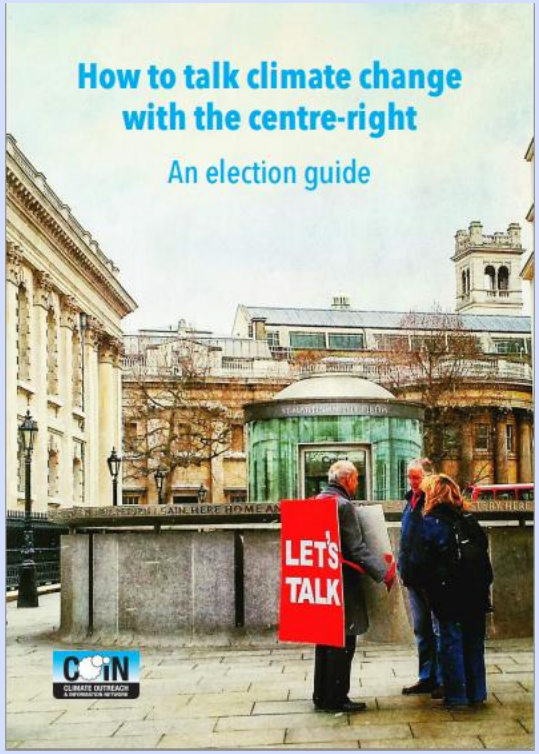
Adaptation Scotland
Values based climate change adaptation communications:

Jamie Clarke Executive Director
Climate Outreach & Information Network
www.climateoutreach.org.uk

CLIMATE OUTREACH & INFORMATION NETWORK

CLIMATE OUTREACH & INFORMATION NETWORK





AFTER THE FLOODS

Communicating Climate Change Around Extreme Weather

Flooded Oxford residents asking "Can we talk about climate change now?" in an event coordinated by COIN

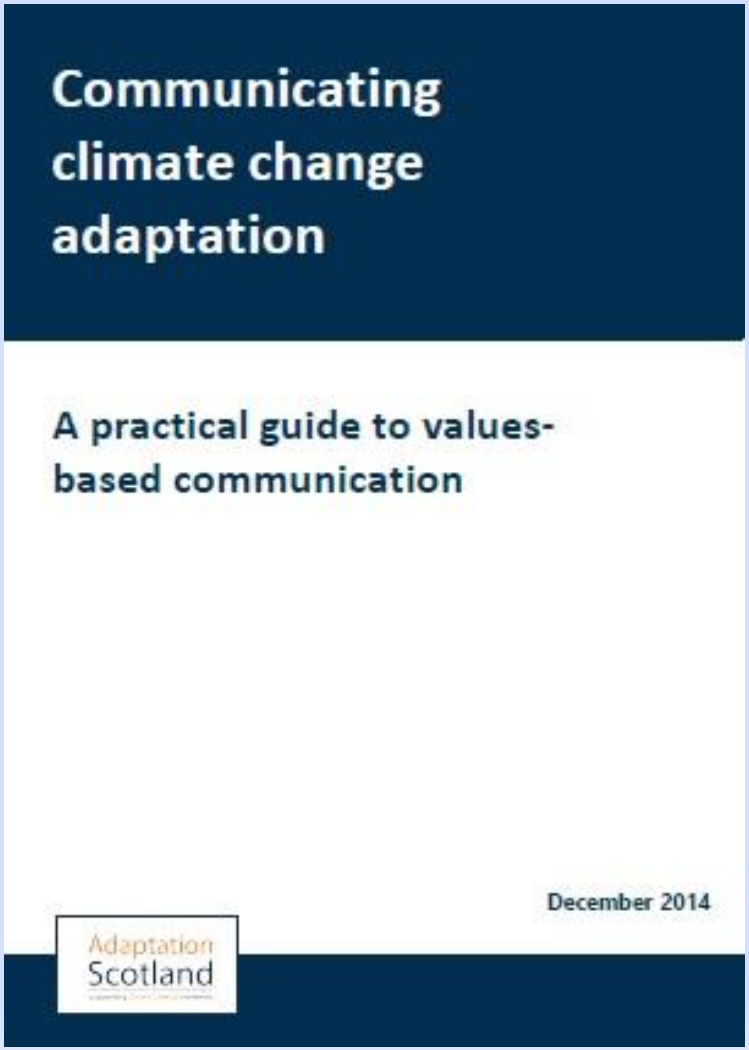
George Marshall
Climate Outreach &
Information Network (COIN)

COIN
CLIMATE OUTREACH
& INFORMATION NETWORK
www.climateoutreach.org.uk


Catalysing
action on
climate change
Climate Change

Living with a Changing Coast

LiCCo Littoraux et Changements Côtiers



Today's Session

- Concept and principles for successful values-based climate communication
- The role of extreme weather events in adaptation communications
- Practical Examples
- Developing your own messages

Creating a climate ready Scotland

The main challenge faced is:

" communicating that climate change adaptation cannot be ignored"

" engaging senior managers and reaching other departments that might not understand how they can help with adaptation"

"to understand how to communicate and raise awareness of climate resilience within the organisation and the communities it serves"

But….

“how do we communicate the (sometimes unpalatable) truth?”

“In lots of cases it will be easier to make a case for actions under a non-climate change banner”.

“Finding ways to change mindsets to new ways of thinking”

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Why is it so hard to communicate?

Climate change means…?

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The **social science** of communication is just as important as the science of climate change and sustainability

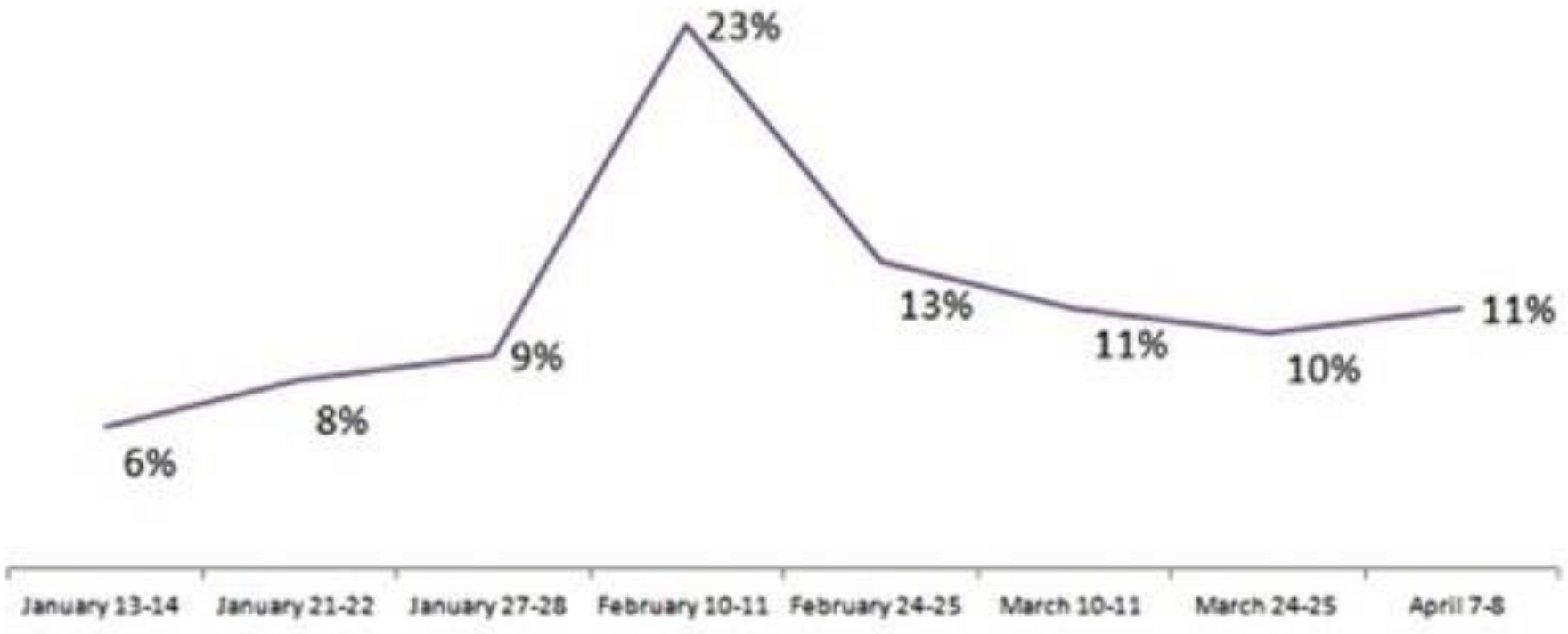
Why climate change is hard to accept

- Has poor relevance
- Is uncertain
- Is technical
- Hasn’t a strong story line
- Is filtered by our world views

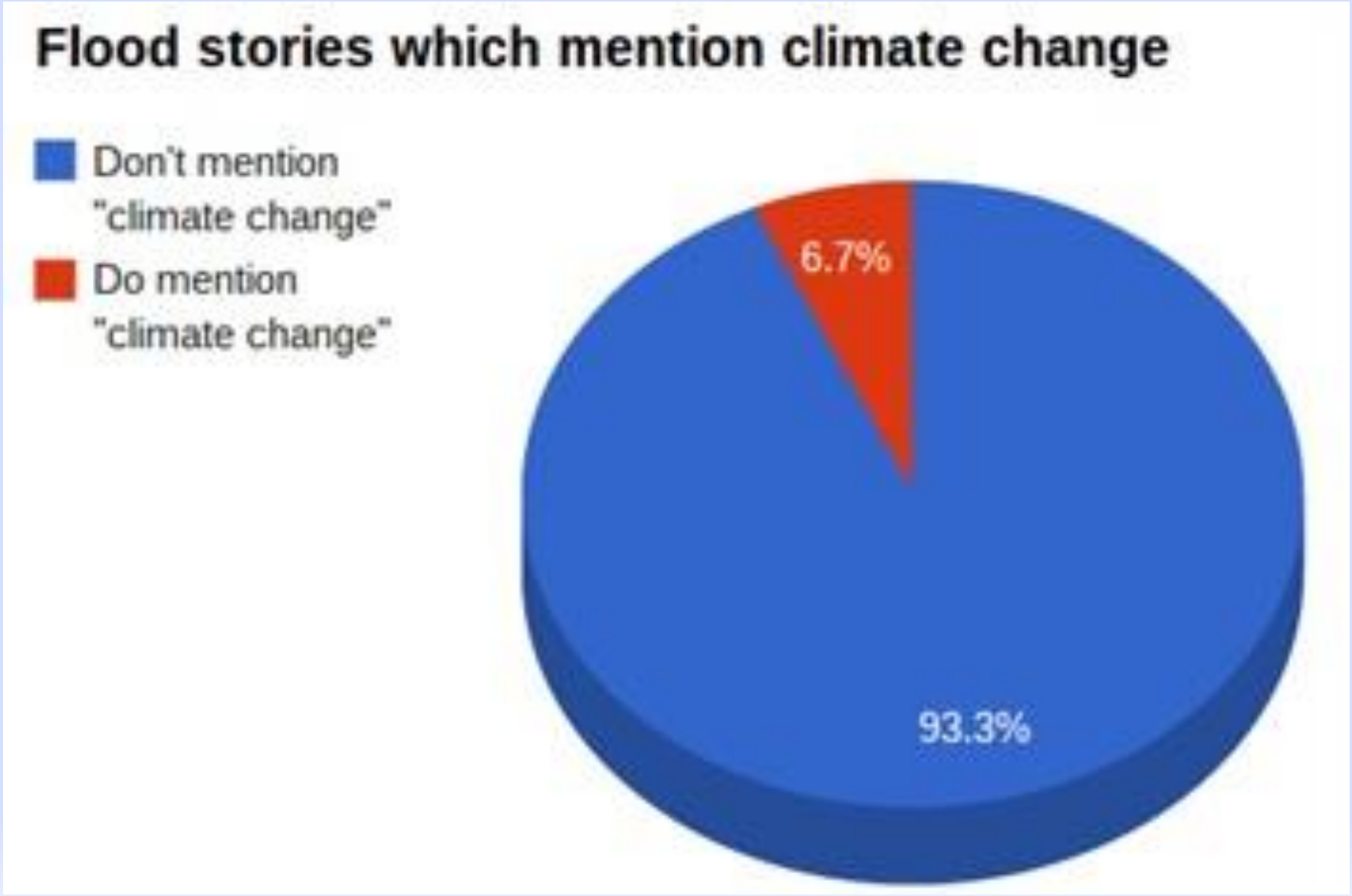
Extreme Weather can help build personal acceptance of climate change

- Fulfils the predictions of climate science
- Provides a sign of things to come
- Offers many of the story qualities that climate change lacks
- Speaks to real experience
- Is certain
- Becomes ¨available¨ experience

Which of the following do you think are the most important issues facing the country at this time? Please tick up to three. *% selecting environment*



Source: YouGov, 2014


Flood stories which mention climate change
Don't mention "climate change"
Do mention "climate change"
6.7%
93.3%

Global cooling or climate chaos?

- Strong **correlational** evidence that ‘experience’ of flooding and concern about climate risks are linked in UK
- But also evidence that cold weather goes ‘either way’ based on values and ideology
- Audience values and whether the narrative resonates with them critical

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People interpret Extreme Weather Events (EWEs)

- In the light of their existing attitudes to climate change
- Strong rationale not to believe
- People want strong and clear narratives
- The need to blame is strong

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And …..

- Strong rationale not to believe
- People want strong and clear stories /narratives
- The need to blame is strong

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The Importance of Values

DAILY EXPRESS

Clooney's amazing mother

Iran threatens serious action against sailors

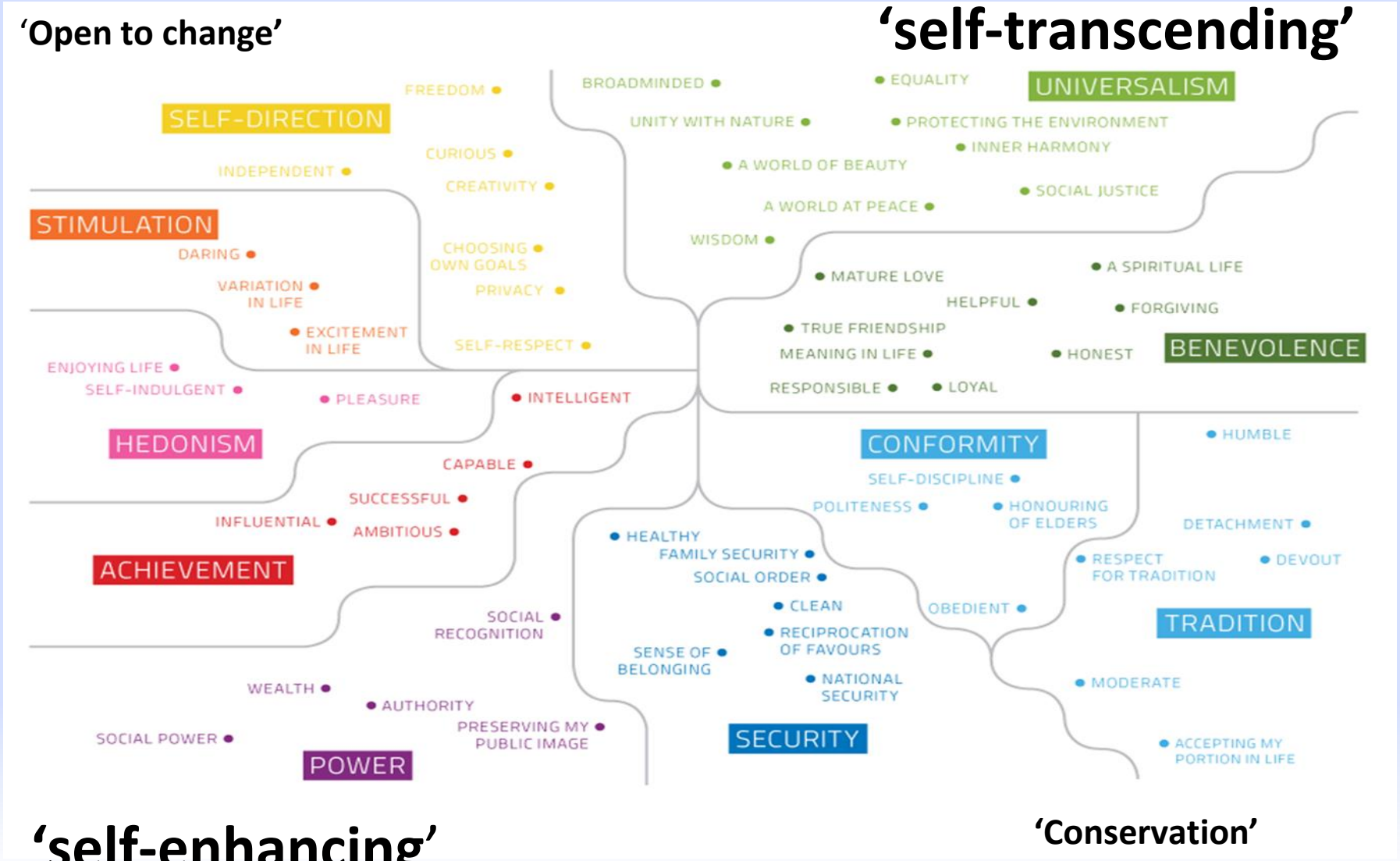
THE BIG CLIMATE CHANGE 'FRAUD'

We are not to blame says top scientist... It's a con to raise tax

IT'S FURRY NICE TO MEET YOU

Values

Guiding principles in an individual's life (Schwartz, 1992)



Values & climate change

- Strong and consistent link between self-transcending (‘we’) values and positive engagement with climate change

- These are the ‘values of a more sustainable society’

Self-transcending (we) values predict:

- Support for climate change policies
- Specific actions linked to adaptation
- Sustainable behaviour in general
- Belief in/concern about climate change

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People are not always altruistic…

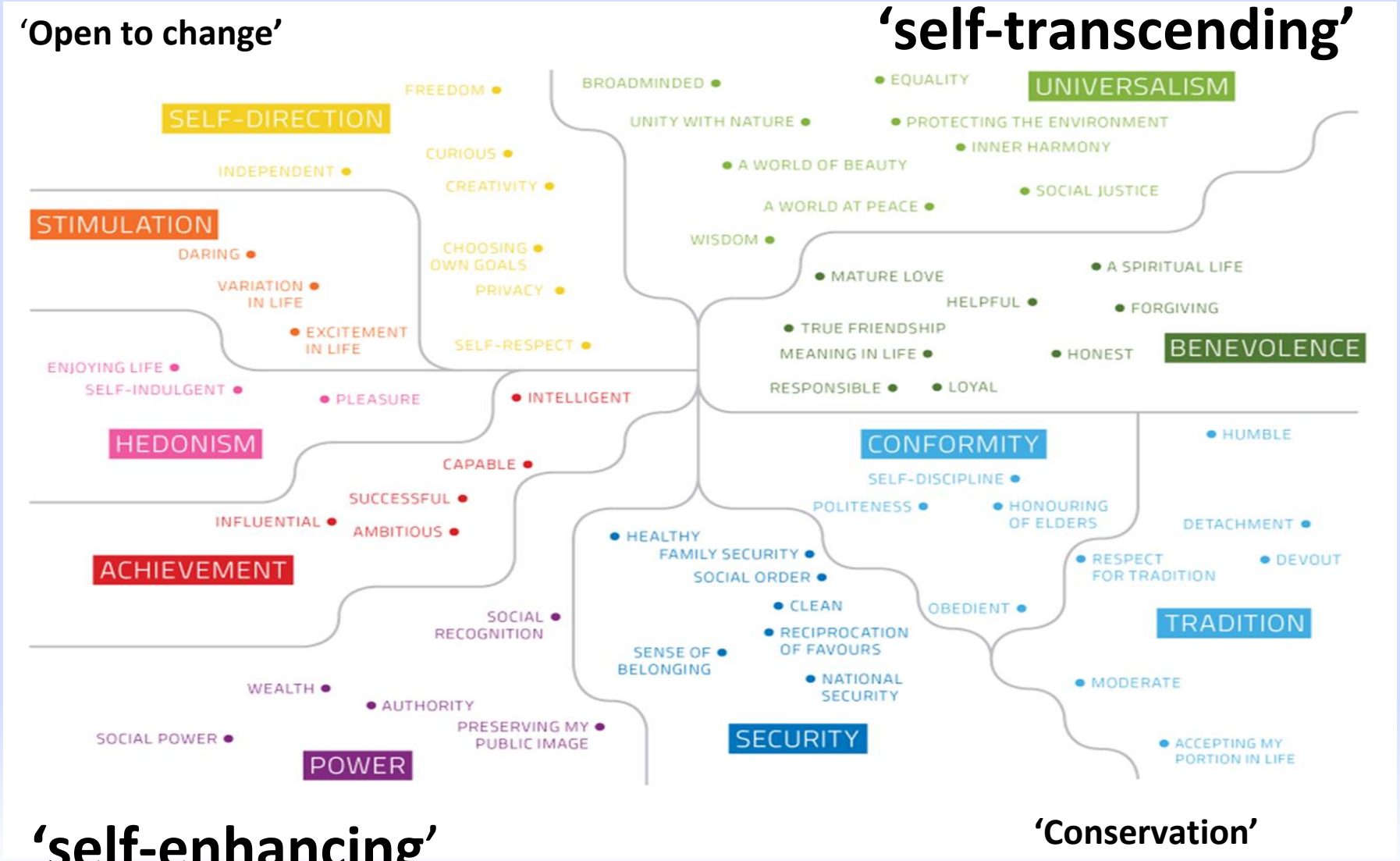
- …but they are also not *only* interested in money or individual gain

- Challenge is building a bridge between the diverse values that people hold and those of a more sustainable society

Developing values-based communications

Values

Guiding principles in an individual's life (Schwartz, 1992)



Polar bears are on thin ice because of global warming.

Give these cubs a chance.

Stop Global Warming

Friends of the Earth

BIG GREEN MAKEOVER

LCEO

low carbon hub

GAIAVEDA

in partnership with

Do you rent in East Oxford?

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&

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catrinapickering@gmail.com
or 07970 233418
More details:
http://lceo.org.uk

Finding the overlap between the values of the centre-right and the values of a more sustainable society

- Pragmatism
- Defending cultural institutions from change
- Sceptical about Big Gov
- Intergenerational Duty

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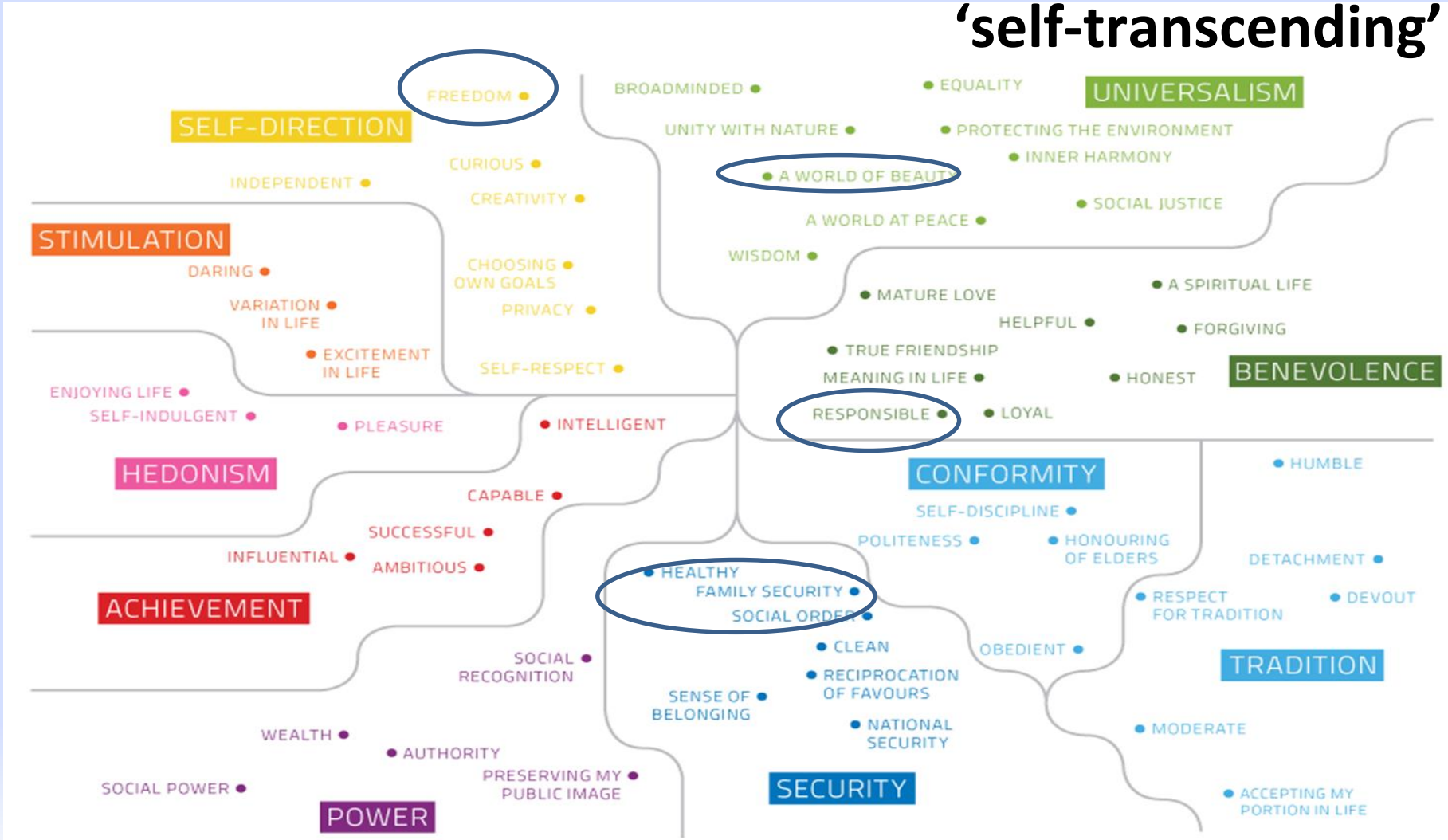
Sustainable centre-right values?

‘self-transcending’



Four narratives

Protecting the ‘green & pleasant land’ (BEAUTY/NATURE/CONSERVATION)

Securing our energy future (SECURITY/SENSE OF BELONGING)

‘New environmentalism’ (FREEDOM/CREATIVITY)

The good life (HEALTH/RESPONSIBILITY)

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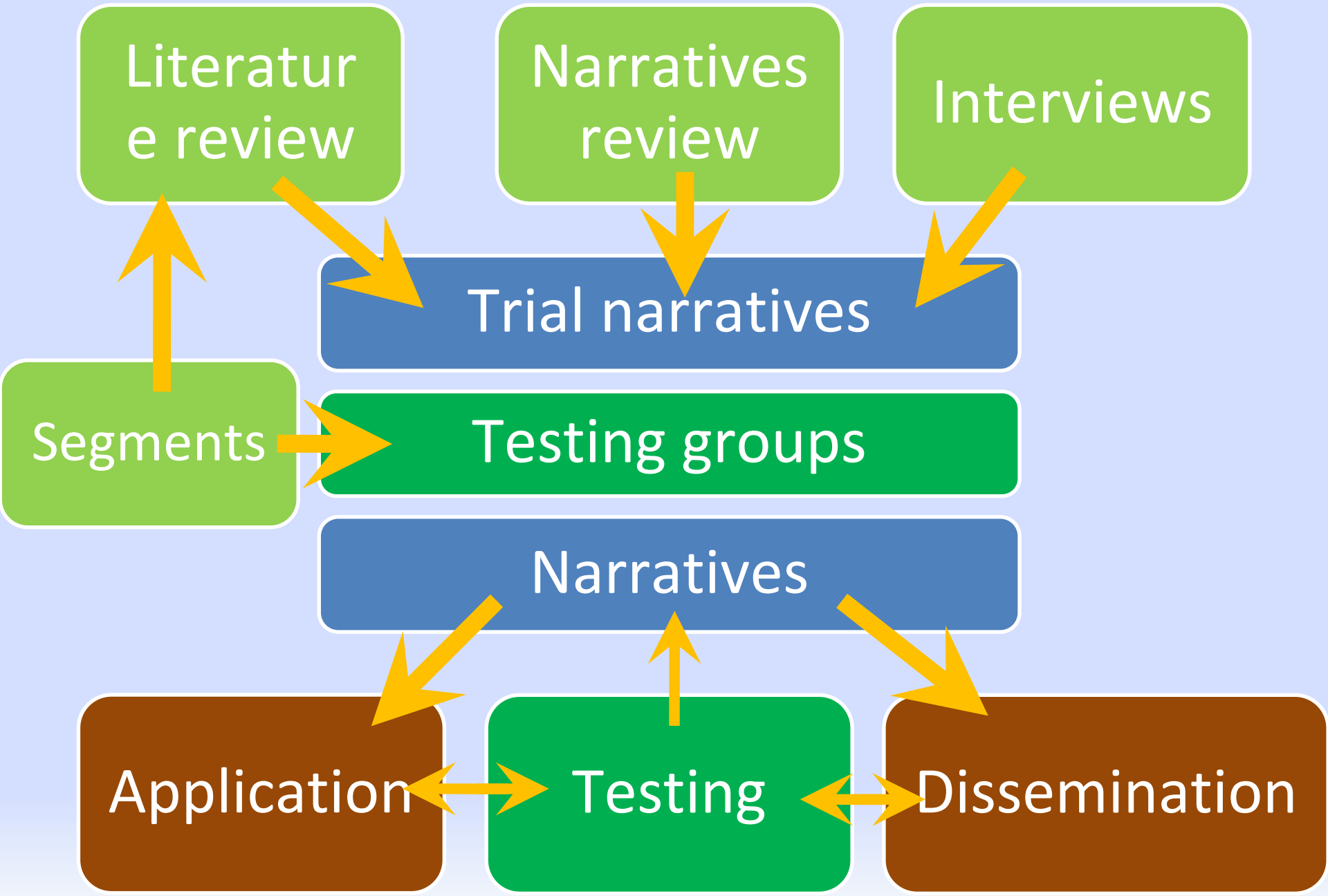
This can be done at a national level…

Task: find common cultural values and identity that apply to all audiences


Literatur e review
Narratives review
Interviews
Trial narratives
Segments
Testing groups
Narratives
Application
Testing
Dissemination

Belonging	Shared identity and national pride
Modest leadership	Earned by achievement and working for common goals
Landscape	‘Environment’ based on local identity and belonging

The natural environment of Wales – our landscape, water, seas, air and everything that lives there –makes us passionate about Wales.

This is a living and working landscape- not something to be put in a museum. There is not one part of Wales that has not been shaped by the hard work of people.

Environment..1

And there is another kind of environment that is just as important to people's quality of life.

It starts at their front doors with everyday concerns: the condition of the pavements, vandalism and crime, litter, and the quality of the air they breathe.

Environment..2

It was our natural resources that built our country in the industrial revolution.

And we are also rich in the natural resources that will meet the new challenges of climate change: the water, wind, forests and sun that can supply the energy needs of our people far into the future.

A national vision?

- Based on a shared sense of cultural belonging NOT nationalistic, competitive one-upmanship
- Testing was crucial: many of the popular prior approaches failed dismally…
- Segments included those traditionally not engaged

Adaptation messaging in practise

Coastal Communites Adapting to Change

West Itchen and St Denys

Photos Courtesy of Peter Taylor

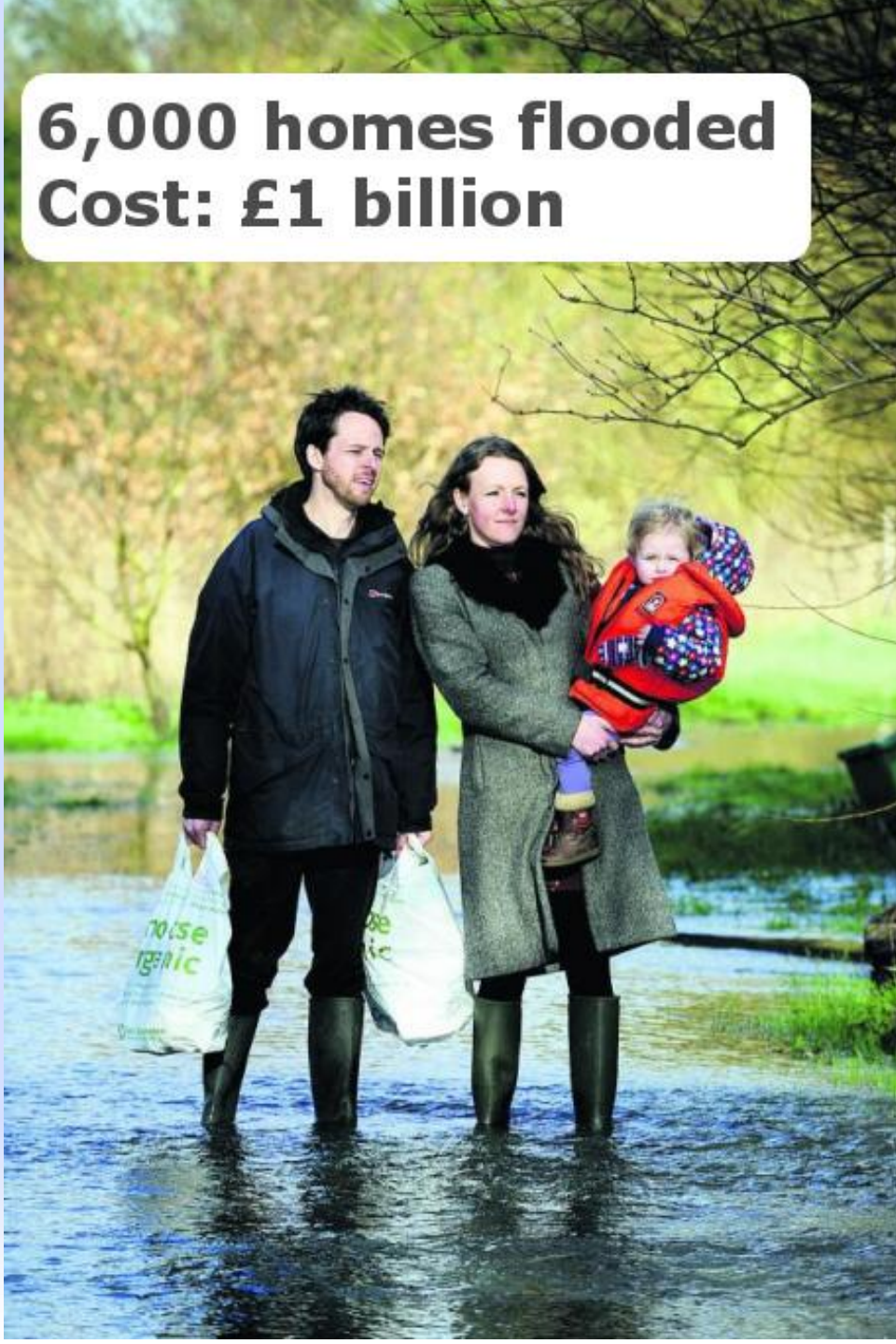
Where are the People? Either locals or project workers.

No personal stories

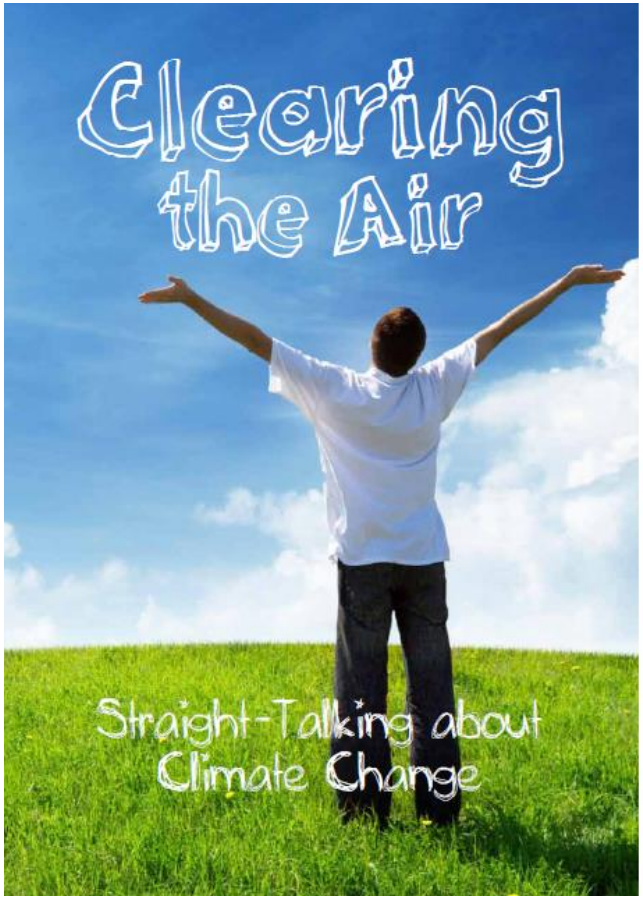
Who is this project?

Are people like me involved?

People must be ‘front and centre’



People's views are formed by the people they know and trust- their peers



What causes Climate Change?

Climate Change is a destabilisation of climate patterns caused by pollution from burning fuels.

A few gases in the air have a special capacity – they can hold the heat in sunlight and warm up the earth. This is similar to the way that glass traps heat inside a greenhouse and, for this reason, they are called 'Greenhouse Gases'. The main Greenhouse Gas is Carbon Dioxide, but Methane, Nitrous Oxides and Water Vapour are also significant. Some artificial industrial gases also have a very powerful 'greenhouse' effect.

Greenhouse Gases occur naturally in the air at very low levels and play a vital role holding in the warmth that makes life possible on earth. The problem is that pollution from the oil, coal and gas we burn pumps an extra 31 billion tonnes of Carbon Dioxide into the air each year.

These fuels are still the main source of energy for every aspect of our lives- for industry, transport, electricity and heating our homes. The clearing and burning of forests, the cement industry, and large scale agriculture, especially meat production, are also major sources of Greenhouse Gases.

Matthew Rutter
Fruit Seller

What is the effect of climate change in Wales?

Significant, but the greatest impacts will probably come from changes outside Wales

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Mrs Kaltun Mohammed
Student Nurse

CFOA
Chief Fire Officers Association

The professional voice of the UK Fire & Rescue Service

Climate Change Adaptation Report 2014

Coastal change is nothing new. It is a natural process which has always happened.

The coast looked different in the past than it does today and it will look different in the future.

Challenges occur where this change threatens people, property, roads, railways and the environment.

Below: *Winter storms along Exmouth sea front*

"Oh, its just natural then..."

60% OF STUDLAND VOTERS LOVE THE ICONIC BEACH HUT SHAPE

With 60% of the vote – the modern take on the traditional beach hut shape was the clear winner. It may look similar similar to the iconic shape, but this design has been developed to better withstand storms, high winds, heavy rainfall and if worst comes to worst it can be easily moved out of harms way. The new features on the inside make it a functional, but much more enjoyable space for beach hut owners and users. 'Long live beach huts at Studland!

There is a clear need to reduce greenhouse gas emissions to avoid accelerating climate change and the risk of even more dramatic storms. How will your home and the place where you live be effected by wetter winters and drier summers? What can we do to adapt and improve the places where we live?

Thank you to everyone who voted (2652 votes in total) and congratulations to Hannah, Jack and Rianna from AUB for the winning design! Now over to Nathan Ball to bring it alive – watch this space...

50.6501° N
-1.9521° W

MORE STORIES

CHANGING COASTS – A TREMENDOUS TALE

CLIMATE CHANGE ADAPTATION FOR BUILDINGS

FUTURE PROOF BEACH HUT EXHIBITION – STAY TUNED TO FIND OUT WHICH DESIGN WILL BE BUILT AT STUDLAND

LICCO PROJECT BATHING MACHINE AT STUDLAND BEACH

UPDATE ON LICCO SCHOOLS RESOURCES

DISCOVER PROJECT SITES

EXE ESTUARY
South coast of Devon, in South West England

POOLE HARBOUR
Dorset coast in the South West of England

VEYS BAY
Manche coast in Normandy, France

What is coastal change?

- Coastal change describes the natural processes which shape the coastline
- The coast has always changed and it always will
- This presents challenges and opportunities

Living with a Changing Coast
LiCCo Littoraux et Changements Côtiers

The changing face of Poole Harbour

Poole Harbour and the surrounding coast has shifted and changed dramatically over the course of history. It has seen rivers of ice, huge storms, the wrenching of rock. Meanwhile the tides and waves work tirelessly with the changing sea level to scour and shape the area we see today, and will continue to do so long after we are gone.

LYTCHETT
POOLE
BROWNSEA
WAREHAM
SANDBANKS
STUDLAND
SWANAGE

450,000BC Poole Harbour 450,000 years ago Britain and France are connected by a land bridge.

125,000BC Poole Harbour 125,000 years ago – The area we now know as Poole Harbour was a river valley, enclosed by a chalk ridge the remnants of which are still visible at The Needles, Isle of Wight.

10-18,000BC Poole Harbour The last period of glaciation comes to an end and sea levels rise in phases of up to 1.5 metres per year flooding ancient river valleys to create Poole Harbour.

4,000BC Poole Harbour Sea levels in the harbour reach their highest point and long shore drift, creating the beginning of a period of varying sea levels.

300BC Poole Harbour Sea levels in the harbour are approx. 1.5 metres lower than they are today.

1586 Old Poole Town Ralph Treswell completes his map of Medieval Parish. At the time Little Sea was partly open to the sea but has now been closed off by the build up of sand.

1700 Wareham The marshes south of the river Frome at Wareham were slowly drained to create grazing land as historian John Hutchins wrote in 1733, "they have been improved and made firm ground by cutting drains, and raising the banks of the river, all in the memory of man".

1800 Poole 90% of Poole's population was dependent on the harbour for employment, but this dropped to 30% when railways reached the town and deep hulled boats moved to Southampton.

1824 Poole The great gale devastates the south west coast of the UK. Hurricane force winds and a storm surge flood Poole to depths of 1.5 metres where local people use skiffs to travel up and down the flooded streets.

1880 Poole Harbour Shell Bay, at the mouth of the Harbour, erodes more than 1.5 metres per year, resulting in the loss of 100 metres of shoreline over the next 50 years.

1881 Portland sand dunes and early development of handworks.

1885 Swanage The arrival of the steam train in Swanage transforms the town's fortunes, bringing in tourists and transporting Purbeck stone.

Have we missed anything? Stick your own stories and photographs here

1890 Poole Harbour Spartina anglica, a species of cord grass begins to colonise mudflats in Poole Harbour transforming them into salt marsh and dramatically changing the coast of the harbour. In location of Hyde's Bay to the alarm of local people. The spread of Spartina continues until the 1930s when the species begins to decline. Poole Harbour Commissioners noted in 1944 that the spread of Spartina could be taken as a warning of even more drastic looking changes from it.

1891 The Pottery works on Brownsea Island, Dorset, shows damage to pots made by engravers and a group of the workforce.

1920 Construction of Sandbanks sea wall.

1926 The 15th century five arched South Bridge, Wareham's gateway to the Isle of Purbeck is removed and replaced with a wider road to improve access to motorists who had to travel a mile upstream to cross the River Frome.

1930 Brownsea Island Construction of Brownsea Island defences and Poole town defences begins.

1935 The great flood of Swanage.

1945 Old Poole Town After the Second World War landing craft are used as a temporary breakwater near Poole Quay. Their remains are still there below the surface today.

1996 Poole Harbour The Little Egret was confirmed as a new British breeding bird, and by 1999 at least 30 breeding pairs were recorded on a total of nine sites, including Swanage and Poole Harbour.

1999 Poole Harbour Shoreline Management Plans are introduced by central government setting out how the UK's coastline should be managed over the next 50 years. The whole coastline was split into different sections and each was allowed one of the following management options: "Do Nothing", "Managed Retreat" or "Hold The Line".

2005 Swanage Swanage beach recharge scheme. During the winter of 2005/2006, 1.2 million cubic metres of sand was dredged from Poole Harbour channels and pumped on to the beaches of Swanage, Poole and Bournemouth to protect them from erosion as part of a £5 million coastal protection project.

2005 Swanage Storms in Swanage

2008 Old Poole Town A high tide, storm surge and heavy rain combine to cause flooding around the Harbour, even overtopping the sea wall on Poole Quay causing flooding in the town.

2010 Brownsea Island Redundant coastal defences are removed by National Trust on Brownsea Island as part of a policy of allowing the coast to change naturally wherever possible.

2011 Poole Harbour The second Poole and Christchurch Bay Shoreline Management Plans published setting out how we can manage coastal change over the next 100 years.

Have we missed anything? Stick your own stories and photographs here

The case for coastal adaptation

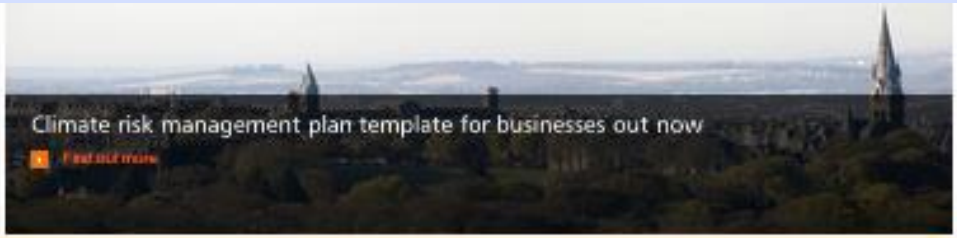
- Nationally, an increasing number of communities are exposed to the **risks** of coastal change
- Exacerbated by **climate change** and **sea level rise**
- Increased **coastal development**
- How do we manage the risk of coastal change?

A "laid back" attitude to coast erosion at Barton-on-Sea, Hampshire! This fissure on the cliff top separates a block of Pleistocene gravel that will sooner or later descend seaward, fast or slow, but probably rather fast.
Photograph by Steve from a paraglider and copyright of Steve of the Wessex Hang Gliding and Paragliding Club.

How do we manage the risk?

Adaptation Scotland

supporting climate change resilience



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Quick links

- Community engagement pilot project blog. Are you ready?
- Adapting to Climate Change: A Guide for Businesses in Scotland
- UK Climate Projections (UKCP09)
- Climate Change Adaptation in Scotland
- Adaptation Scotland Newsletter
- National log of weather event impacts
- Stoffel
- Adaptation Scotland blog
- Adaptation Scotland report for 2011-2013

Welcome to Scotland's Climate Change Adaptation Gateway

Adaptation Scotland provides advice and support to help ensure that Scotland is prepared for, and resilient to, the impacts of climate change.

How is Scotland's climate changing and what should we do to adapt?

Take a look at this film to learn more about the changes in climate that we are experiencing and the responses of different organisations, businesses and communities.

You can also see short stories from projects around Scotland here.

Latest news

Adaptation Learning Exchange has held first workshop

04/07/14 › Read full story

A big year for adaptation

25/06/14 › Read full story

‹ Previous Next ›

Page 1 of 5

Twitter feed

It's been a busy summer - check out our latest newsletter http://t.co/FXHSFcmgb

1 day ago

Follow us on Twitter

Implications for Adapting Scotland

- Frame messages using self-transcending (we) values **wherever possible**

- Create narratives that build a bridge between diverse audiences values and those of a resilient Scotland

7 top tips

1. Always think ‘who am I speaking to’
2. Understand and speak to their values
3. Avoid ‘environmentalist’ messages
4. Make climate change feel here and now
5. Offer a clear reward (of belonging)
6. Tell an inspiring story
7. Use trusted messengers and peer networks

Audience	*Who* are you talking to?
Message	*What* do you say to them?
Messenger	*Who* is saying it?
Medium	*How* is it said?
Action	*What* do you want them to do?

Adaptation Scotland

supporting climate change resilience

16:35

Evaluation and 'Do one thing'

Adaptation Scotland – Project Co-ordinator

Sophie Turner

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

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

Adaptation Scotland
supporting climate change resilience

Do one thing

- Identify **one thing** that you are going to go away and do before the next meeting.

Research shows that we are much (76.7%) more likely to do actions that we write down and are accountable to others for!

Please contact us if you have any questions

Sophie Turner

Sophie@sniffer.org.uk

Joseph Hagg

Joseph@sniffer.org.uk

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- please contact us -

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