

# Scotland's Second Climate Change Adaptation Programme

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19<sup>th</sup> June 2019



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## Presentation

1. An introduction to the changing climate in Scotland
2. Context for the second Scottish Climate Change Adaptation Programme (SCCAP2)
3. Overview on the Outcomes-Based Approach
4. Public Engagement:
  - a) Digital
  - b) External Engagement Workshops
  - c) Climate Conversations
5. Adaptation Behaviours



# Climate change is real and happening now

## Observed

- + **0.9° C** : increase in average UK land temperature
- + **7 %** : increase in annual rainfall in Scotland
- + **1.4 mm/yr** : UK sea level index for sea level rise since 1901



## Projected

- + **2° C** : increase in temperature by the end of the century.
- Under a medium emissions scenario:
  - + **0.9 – 4.5° C** : projected regional summer mean temperatures by the 2050s under a medium emissions scenario
  - **-2% – +31%** : projected regional winter precipitation change from 1961-90 baseline



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# So, Practically, What is Climate Change Adaptation About?

- Protecting vulnerable communities
  - Ensuring business continuity and making the most of business opportunity
  - Protecting critical infrastructure and services
  - Safeguarding natural and historic assets, vulnerable sites and species
- .... **All of this and more**



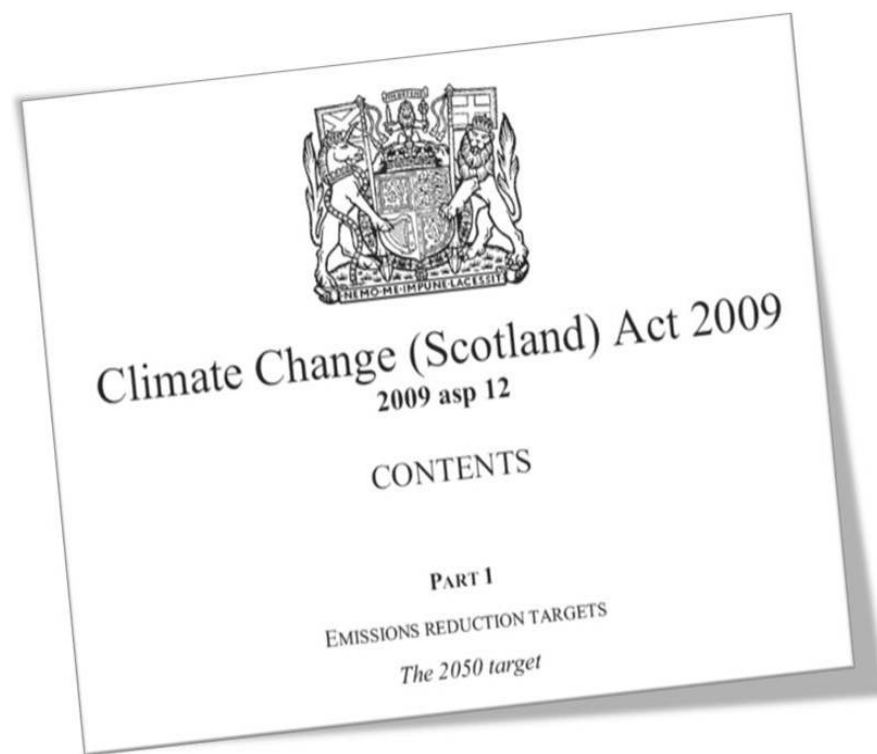
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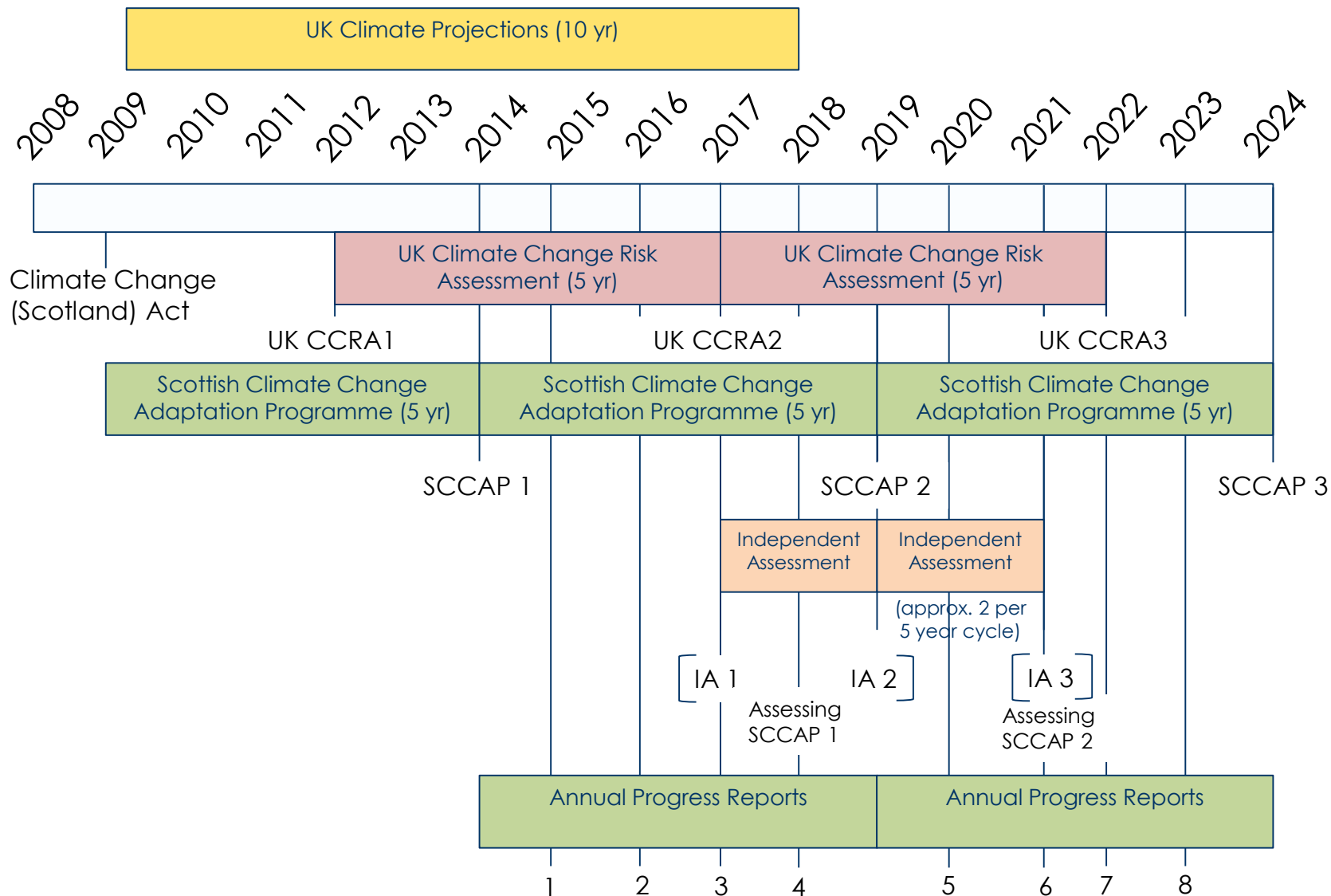
## Climate Change (Scotland) Act

Scottish Ministers must lay a Programme before Parliament that sets out:

- Objectives for climate change adaptation
- Proposals and policies to meet those objectives
- Involvement of stakeholders in meeting those objectives
- Public engagement in climate change action
- A timeline for implementation



# Long-Term Programme Timeline



## First Adaptation Programme

- Recognised in the last independent assessment by the UK CCC's Adaptation Sub-Committee as a great early start
- Demonstrated first strategic approach to adaptation in Scotland
- Characterised by awareness raising, early action across sectors and case studies

### Climate Ready Scotland: Scottish Climate Change Adaptation Programme



Laid before the Scottish Parliament under Section 53 of the Climate Change (Scotland) Act 2009

May 2014  
SG/2014/83

## What's new?

- Building on the success of the last Programme
- We are using an outcomes-based approach for the second Scottish Climate Change Adaptation Programme



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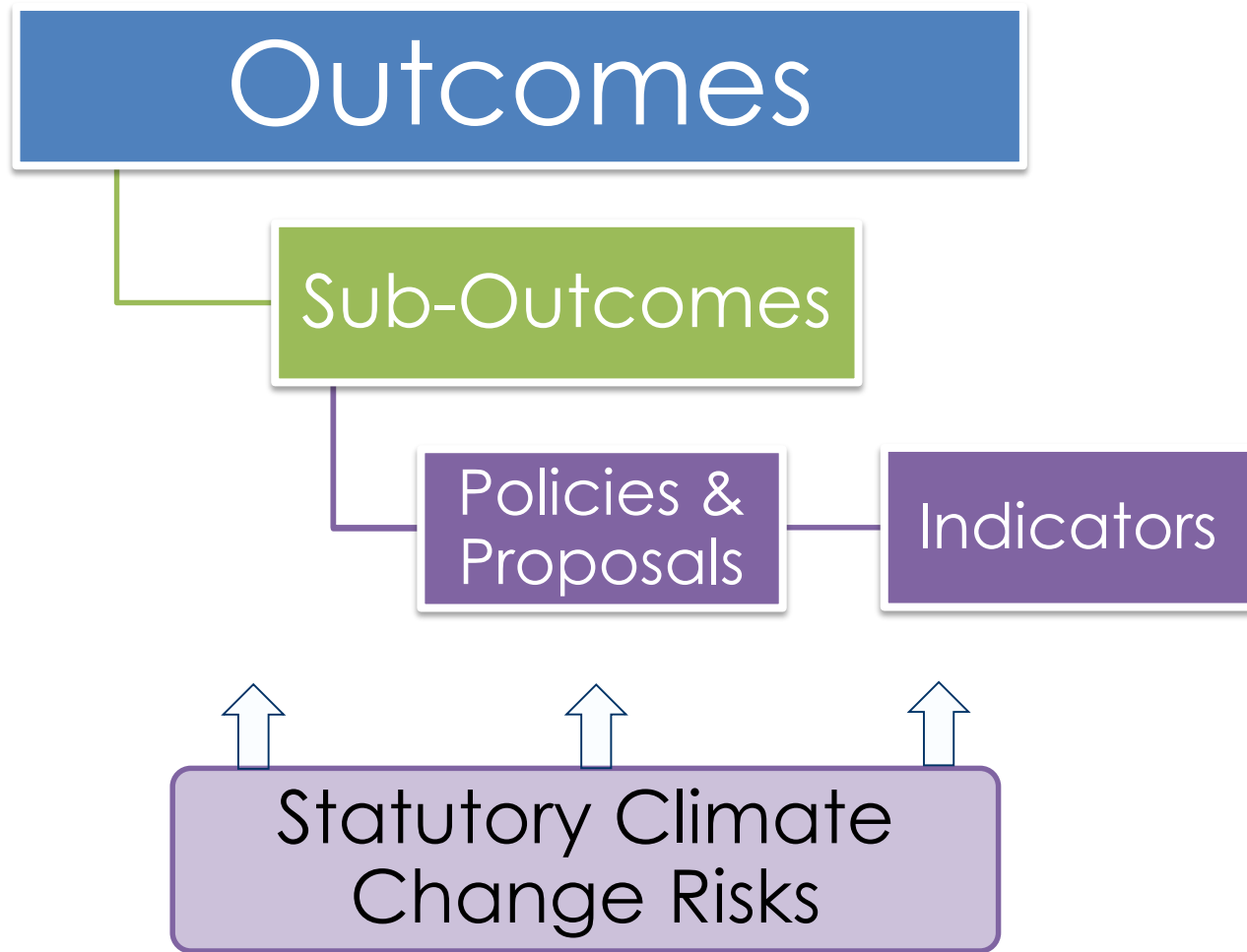




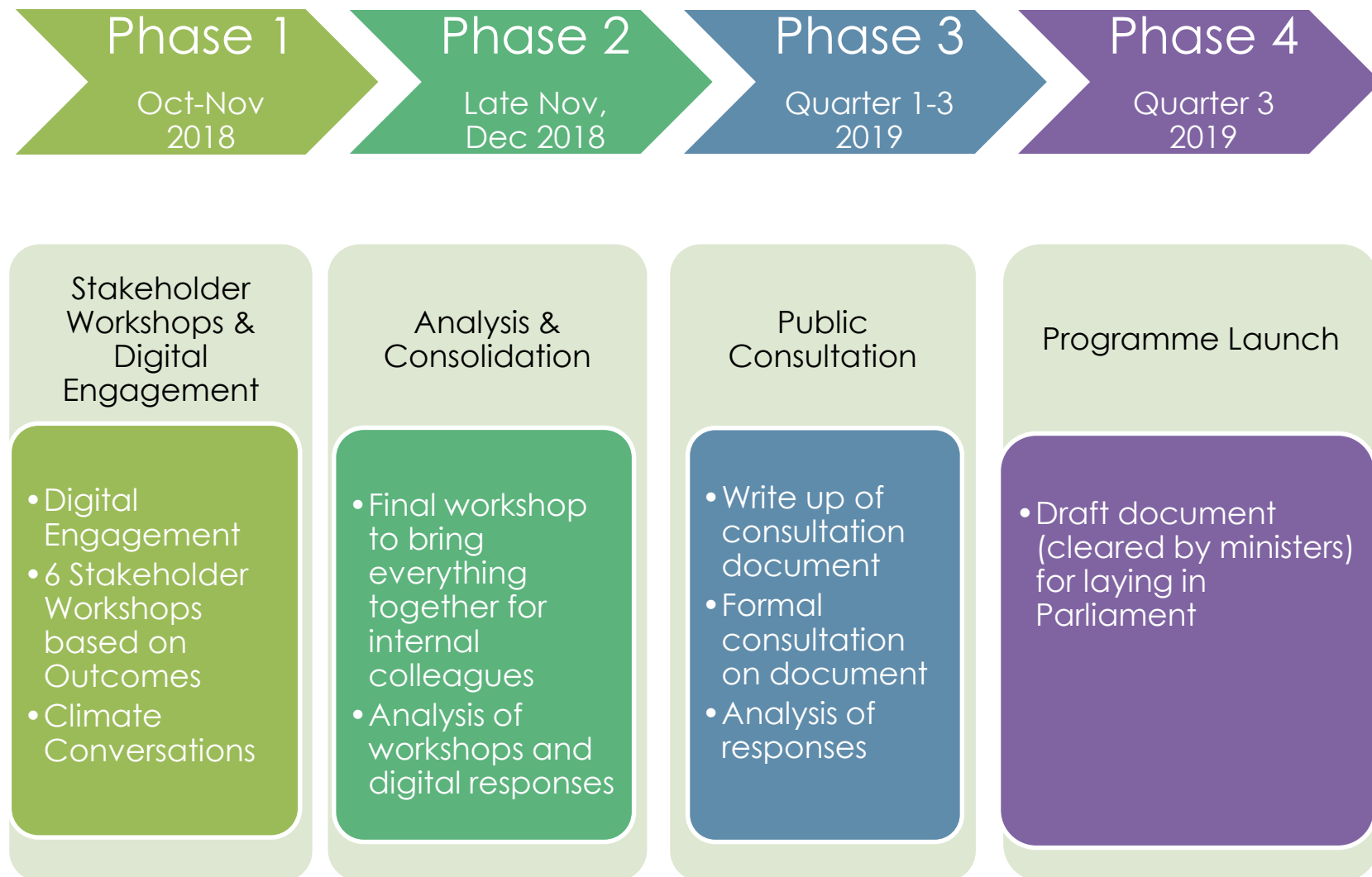




# Structure of the Second Scottish Climate Change Adaptation Programme Document



# Engagement and Consultation Process and Timeline



# Strategic Environmental Assessment

- What:

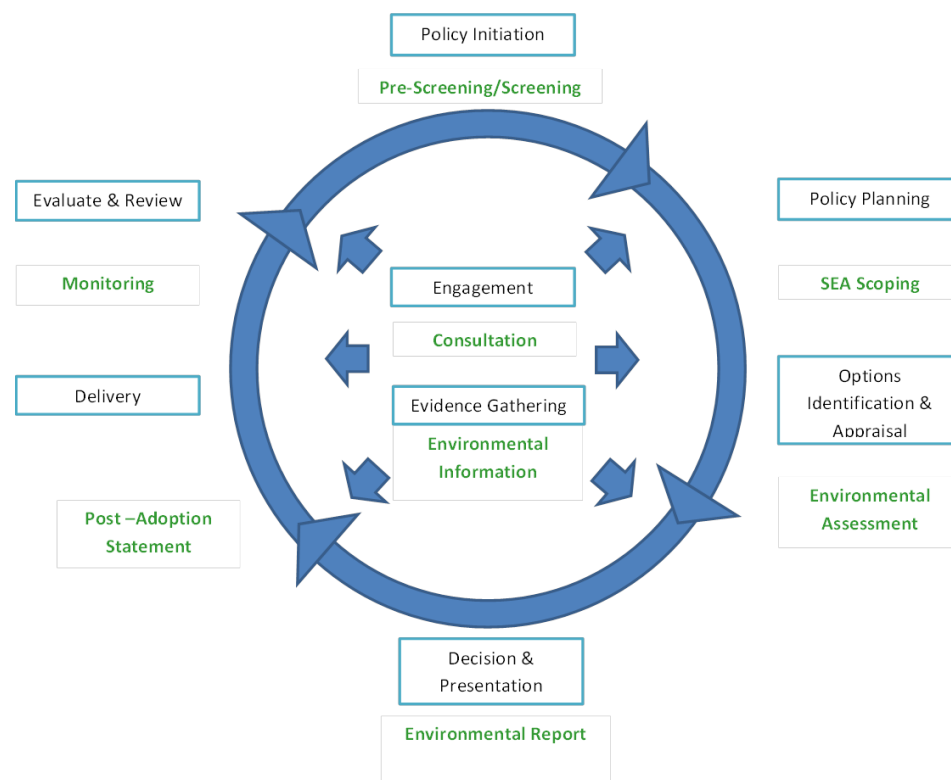
- A means of evaluating qualifying plans, programmes and strategies for their likelihood to cause significant environmental effects

- Why:

- Legal requirement under the Environmental Assessment (Scotland) Act allowing greater consideration of the environment in the preparation stages

- When:

- Started early in the preparation stage taken alongside the programme development





- Digital engagement
  - 2 hour interactive engagement sessions for each of the 7 outcomes
  - Using Twitter
  - Supported by sectoral colleagues with knowledge relevant to outcome area
- Purpose:
  - Increase awareness of climate change adaptation and the programme
  - Gain understanding of wider stakeholder priorities
  - Results to be fed into the workshops content to aid discussions



[#ScotlandAdapts](https://twitter.com/ScotGovClimate)



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# Digital Engagement: Results

Have you observed or experienced any changes in the Economy in Scotland as a result of climate change?

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Climate Change Adaptation Series



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Have you observed any adaptation to these changes?

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Climate Change Adaptation Series



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What are your Economic priorities for the next Scottish Climate Change Adaptation Programme?

ECONOMY  
Climate Change Adaptation Series



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## • Observations

- Changing growing seasons
- Tarmac and roofs melting due to heat
- Poor maintenance of historic buildings causing flooding and damage
- Increased ferry disruption due to strong storms
- Increased coastal erosion

## • Adaptations

- Natural flood management
- Strong community led projects (such as those through the CCF)
- Using video conferencing and livestreaming of events to avoid travel disruption

## • Priorities

- Green spaces & Green Infrastructure
- Adaptation demonstration projects



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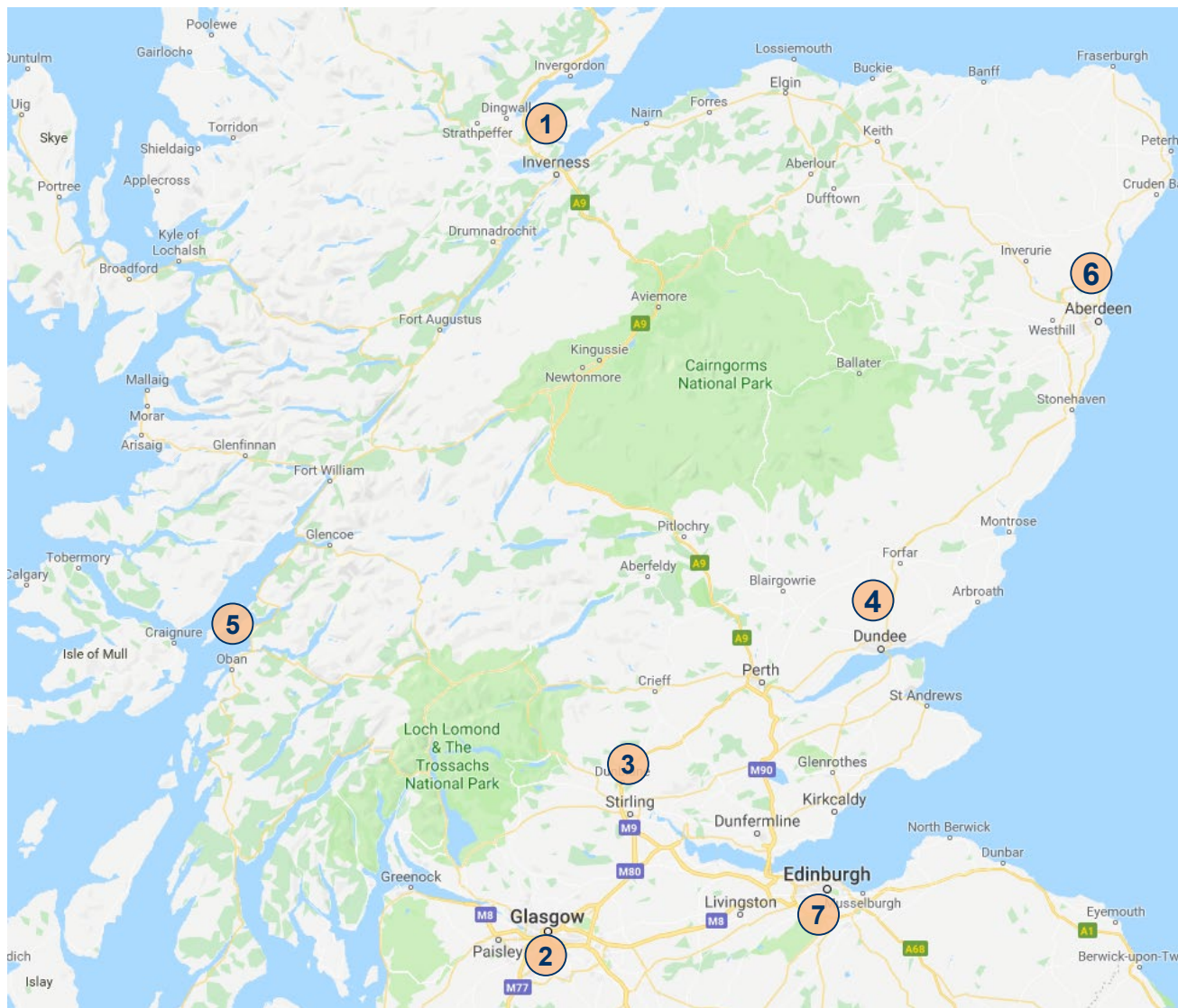
- 6 Outcomes Based Workshops
- Purpose:
  - Raise awareness of climate change adaptation with stakeholders in different sectors
  - Stimulate discussion and input around each outcome
  - Initiate exploration of stakeholder priorities and concerns around each outcome





# Engagement Workshop Locations

	Outcome	Location
1	Natural Environment	Inverness
2	Infrastructure	Glasgow
3	Communities	Stirling
4	Climate Justice	Dundee
5	Coastal and Marine	Oban
6	Economy	Aberdeen
7	Wrap-Up	Edinburgh



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- **Purpose:** to facilitate informal discussion with groups not typically engaged with climate change topics
- Updated the previous Climate Conversations Guide to focus on adaptation instead of mitigation behaviours
- 10 Climate Conversations took place across Scotland from Shetland to the Borders
- Included groups of individuals that are not related to climate change
- Completed end March 2019

## 1 Natural Environment

Risks	Actions
<ul style="list-style-type: none"><li>• New pests, pathogens and invasive species</li><li>• Habitat / ecosystem damage</li><li>• Extreme weather events</li><li>• Species loss</li><li>• Flooding</li></ul>	<ul style="list-style-type: none"><li>• Plant mixed forests</li><li>• Expand woodland</li><li>• Increase connections between habitats</li><li>• Opportunity for more summer tourism</li></ul>



## 4 Communities

Risks	Actions
<ul style="list-style-type: none"><li>• Higher flood risk</li><li>• Sea level rise</li><li>• Extreme weather</li><li>• Damage or loss of historical sites</li></ul>	<ul style="list-style-type: none"><li>• Consistent building maintenance</li><li>• Green roofs and permeable surfaces</li><li>• Community hubs</li><li>• Local food growing</li><li>• Protection / restoration of historical sites</li></ul>



- 73 responses from individuals (15) and organisations (58)
- Strongly positive.
- An appetite for more detail.
- Calls for the vision to convey a greater sense of urgency and ambition, and emphasise the scale of change required.
- Calls for flexibility to reflect the volatile nature of climate change and provide capacity for Scotland to respond to new evidence.
- Responses and analysis on Scottish Government's consultation website: <https://consult.gov.scot/energy-and-climate-change-directorate/adaptation-programme-2019-2024/>



# Adaptation Behaviours

Adaptation behaviours enhance climate change adaptation by asking individuals and organisations to alter their behaviour to increase resilience, and reduce the severity of potential climate change impacts

- Not yet a widely recognised concept, but will be integrated into the second Scottish Climate Change Adaptation Programme
- **Example: establishing a regular programme of maintenance/drain clearing, with additional consideration when extreme weather forecast**
  - Could be responsibility of local authority, individual or business
  - Improves drainage, reduces surface water and limits flooding



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## Next Steps:

1. Finalise the next Adaptation Programme, taking into account the responses to the public consultation, the results from Climate Conversations workshops, and recommendations from the Committee on Climate Change Second Independent Assessment of SCCAP.
2. Scotland's Second Climate Change Adaptation Programme to be published late Summer 2019.



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# THANK YOU



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