



Carse of Gowrie Climate Change Panel

Carse of Gowrie Climate Change Panel

Session 2: how climate change
could affect your area

1 March 2011

Welcome

Carse of Gowrie Climate Change Panel

Tonight

Feedback from last week
Climate change headlines
What this could mean for the Carse of Gowrie
Discussion

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Previously . . .

Last week we identified the area's **strengths** and **weaknesses** under the headings of:

- natural environment
- built environment
- local economy
- social and community
- culture and heritage

Here are the results:

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Natural environment

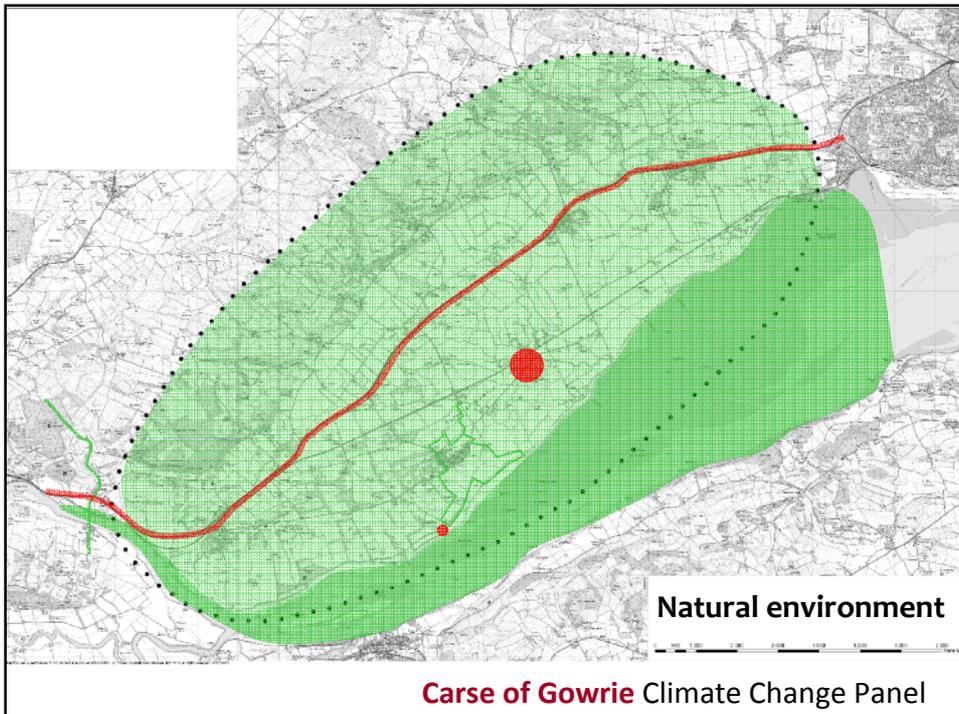


- The whole of the Carse
- Orchards, new and old
- Paths and trails
- River Tay – reedbeds - designated
- Birds – some rare and secret
- Diverse wildlife and habitats
- Ancient trees and hedges
- Historic gardens and designed landscapes
- Pows
- Scenic quality – landscape and views over the Carse and Braes
- Farming and fruit growing



- Lack of woodland
- Poor access to the river & trails blocked elsewhere
- Flooding, poor drainage, clay soils, maintenance of Pows
- Lack of protection for orchards
- Vermin
- Noise from the A90

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Built environment

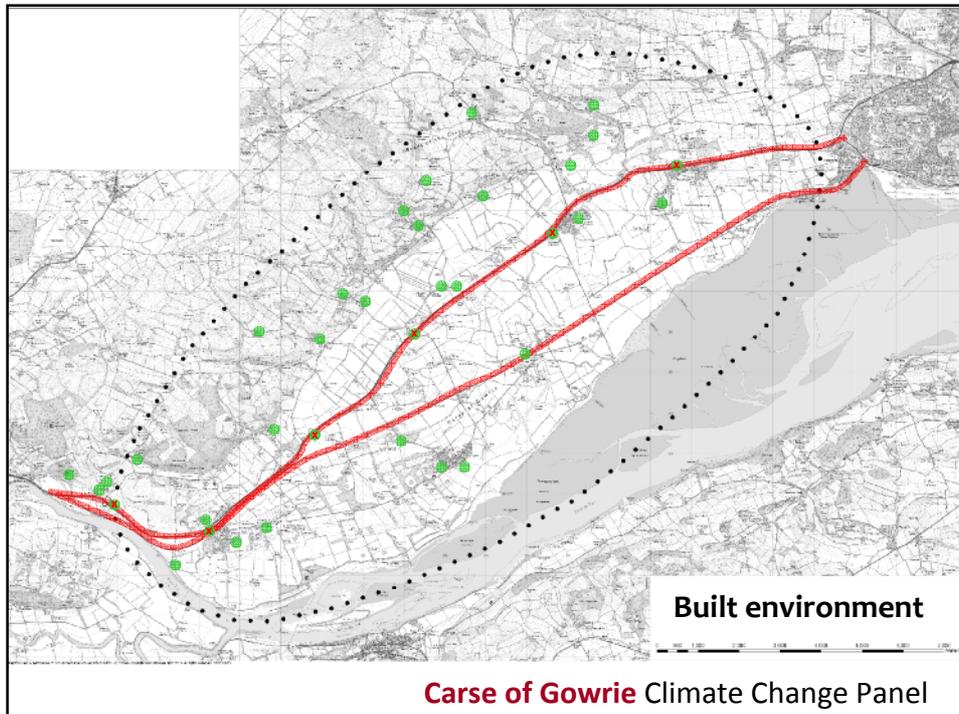


- Small villages
- Historic buildings – steadings, churches, listed buildings, historic gardens – all fitting the landscape
- Community use of public buildings
- A90 flyovers
- Good links via A90



- Flooding, including housing being built in flood risk areas, and reliance on electricity for pumping
- Design and character of new housing
- Poor public transport
- Poor opportunities for cycling
- Poor roads off the A90
- Severance by A90 and railwayline

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Local economy

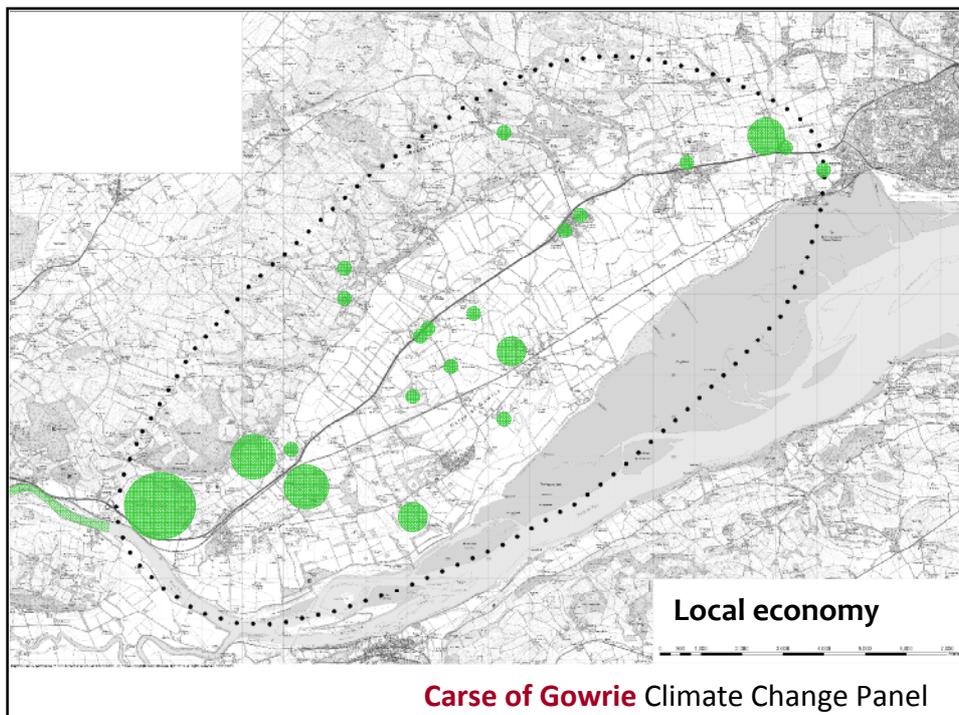


Agriculture, soft fruit production, polytunnels
Specialist producers – herbs, winery
Fisheries
Local foods
SCRI
Good transport access
Local businesses e.g. garden centre, caravan centre, markets and car auction
'Visitor' attractions – castles, hotels



Intensive agriculture – polytunnels, loss of dairy, no rotation
Poor public transport, no P+R
Poor visitor infrastructure
Lack of support and sites for business development
Commuting out of the area
Poor IT and telecoms
Inappropriate development – loss of local identity

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Social and community



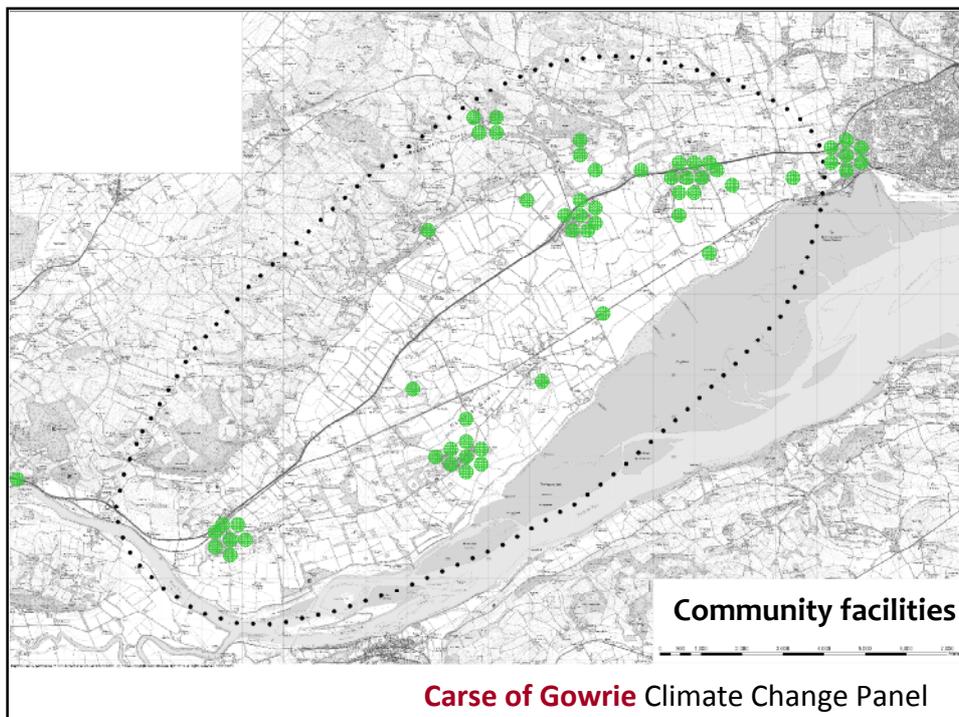
Long list of:

- Community facilities
- Recreation opportunities
- Shops and mobile shops
- Community organisations
- Community initiatives



Poor schools facilities and lack of secondary school
Poor road maintenance
Lack of policing
Poor public transport
Loss of shops and POs
Need for sustainable communities (new housing at Abernyte)
Car boot sale

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Culture and heritage

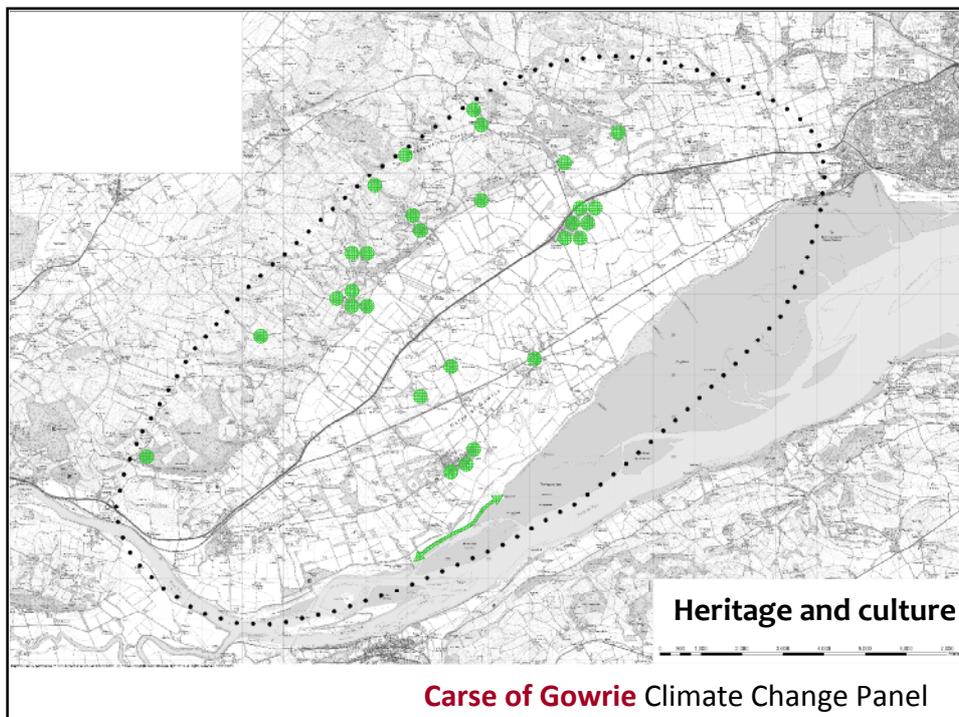


Long list of historic buildings – churches, forts, castles, houses, archaeological sites
Designed landscapes, historic orchards, Redwood trees
Local arts and crafts businesses
Local heritage and conservation groups
Community events - village fetes, fun runs
Conservation areas
Distinct CoG identity and culture
River Tay – heritage and history

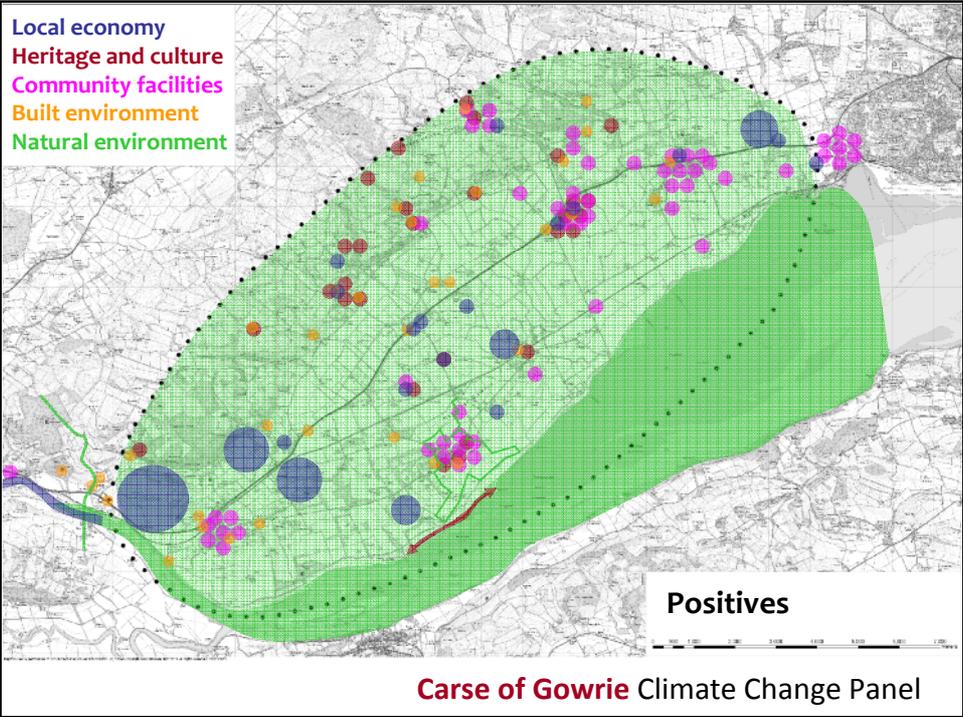
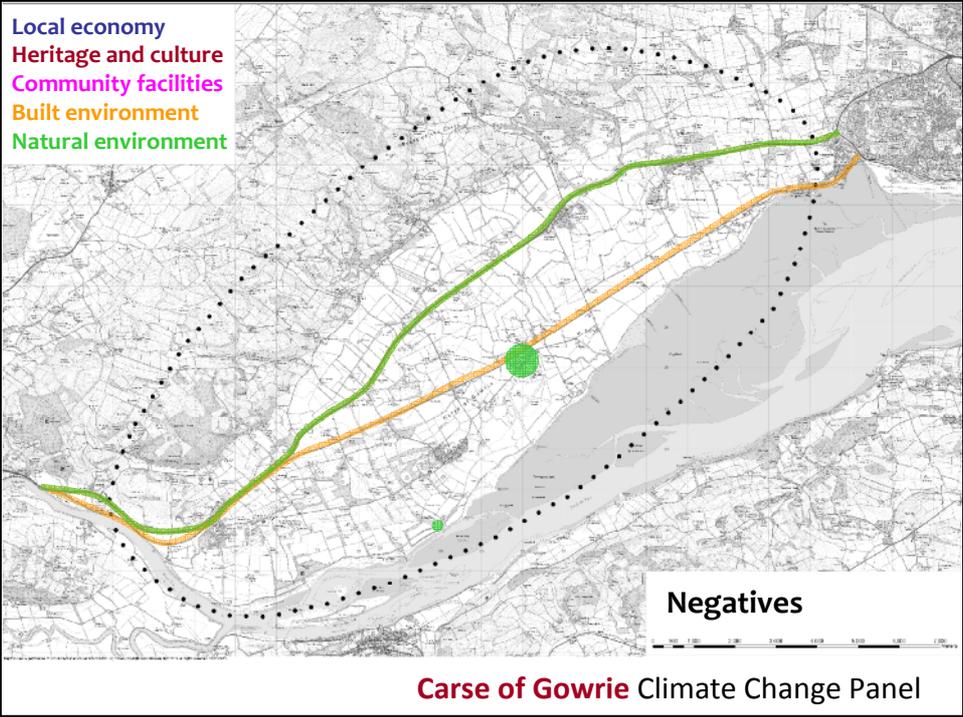


Risk of losing community identity – speed and type of development
Lack of cultural activities, lack of focal point in some areas
Lack of information and interpretation of culture and heritage
Apathy and lack of communication
Some historic buildings in poor condition

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Climate change - headlines

Past climate change – between 1961 and 2004

- Average temperatures have increased, especially in winter
- Rainfall patterns have changed – up to 50% increases on the Carse in autumn and winter, together with heavier rainfall
- Less snow, earlier spring and later autumn
- Rising sea levels, particularly since 1992 (around 4mm per annum)

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Climate change - headlines

Future climate change – UK Government projections published in 2009 see these trends continuing:

- Summers getting warmer and drier
- Winters getting milder and wetter
- Spring even earlier, autumn even later
- More extreme or unpredictable weather
- Rising sea levels (up to 74cm at Dundee by 2100)

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... so what could the effects be

Direct effects of climate change

- Winter flooding along rivers
- Summer drought
- Flooding along the coastline
- Impact on woodlands and natural habitats
- Possible increase in storm damage
- New species, pests, diseases affecting plants, trees, crops, animals and humans

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... also about how we respond ...

Different types of response:

- *Climate change mitigation* – actions we take to reduce carbon emissions (renewables, woodland expansion etc) – we have choices and trade-offs

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... also about how we respond ...

Different types of response:

- *Climate change mitigation* – actions we take to reduce carbon emissions (renewables, woodland expansion etc) – we have choices and trade-offs
- *Climate change adaptation* – actions we take to adapt to the changing climate (flood protection, new crops etc) – we have choices and trade-offs

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What might this look like?

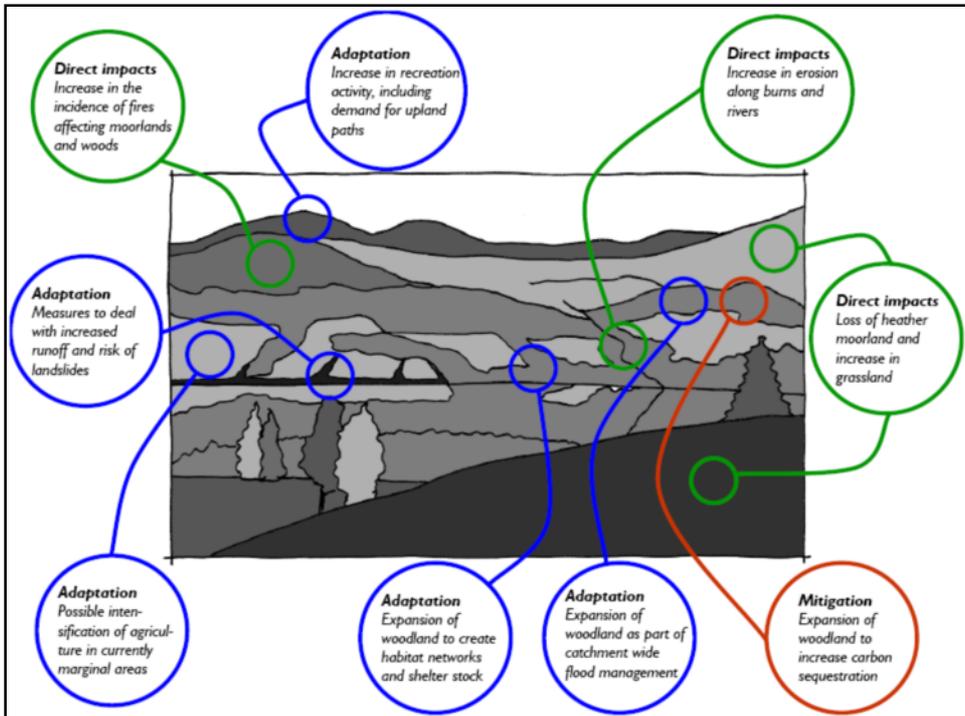
Three examples of landscapes from Tayside

- Killiecrankie in Perthshire
- Strathmore in Angus
- Firth of Tay in Perthshire / Fife

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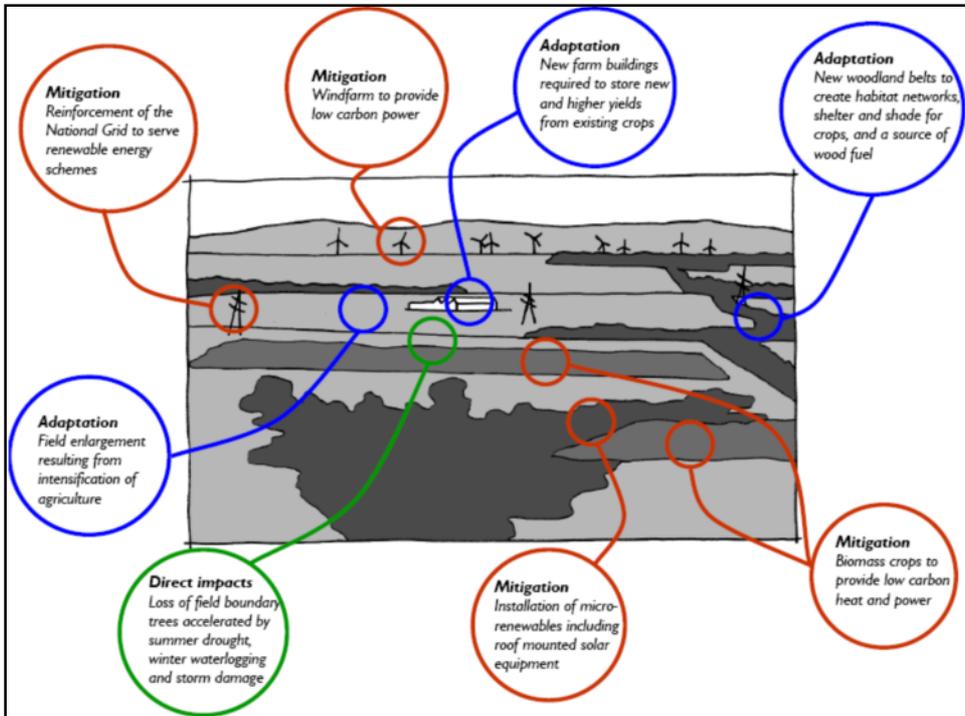
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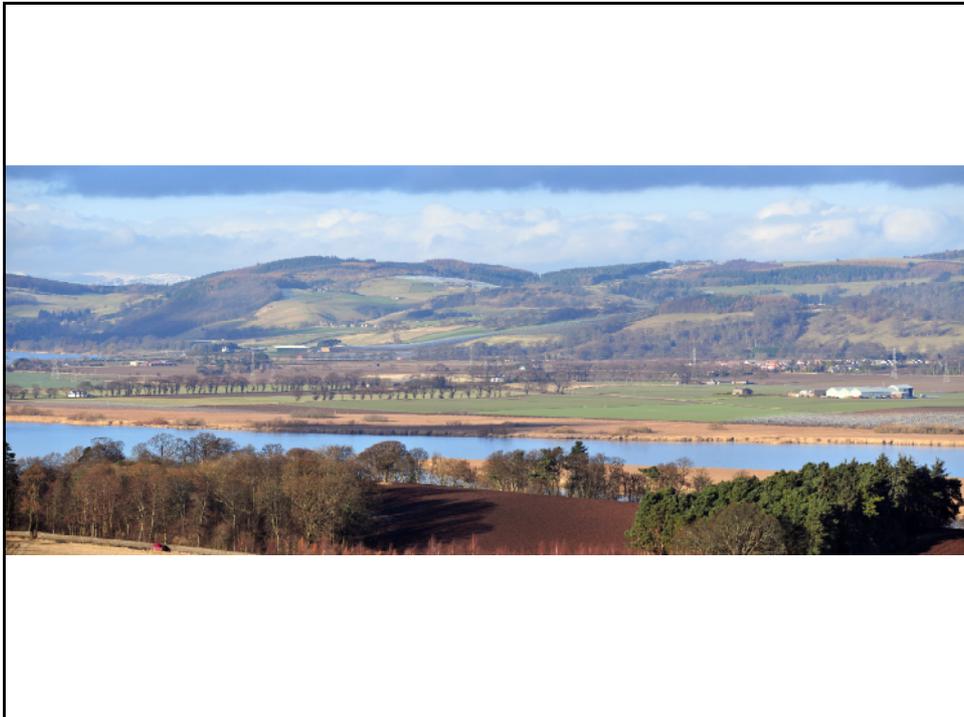


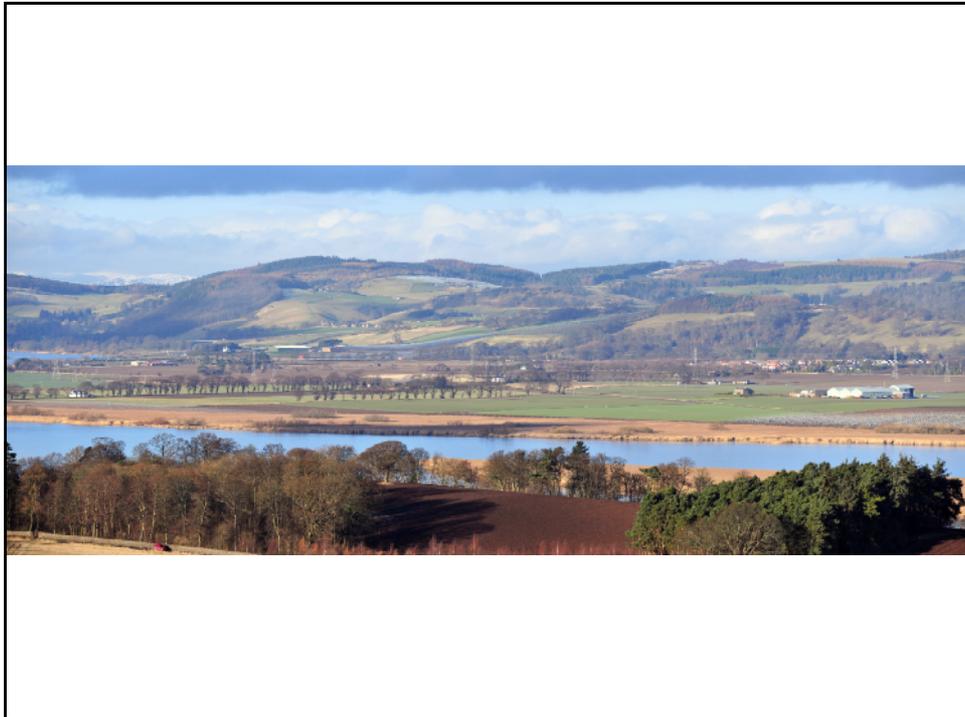
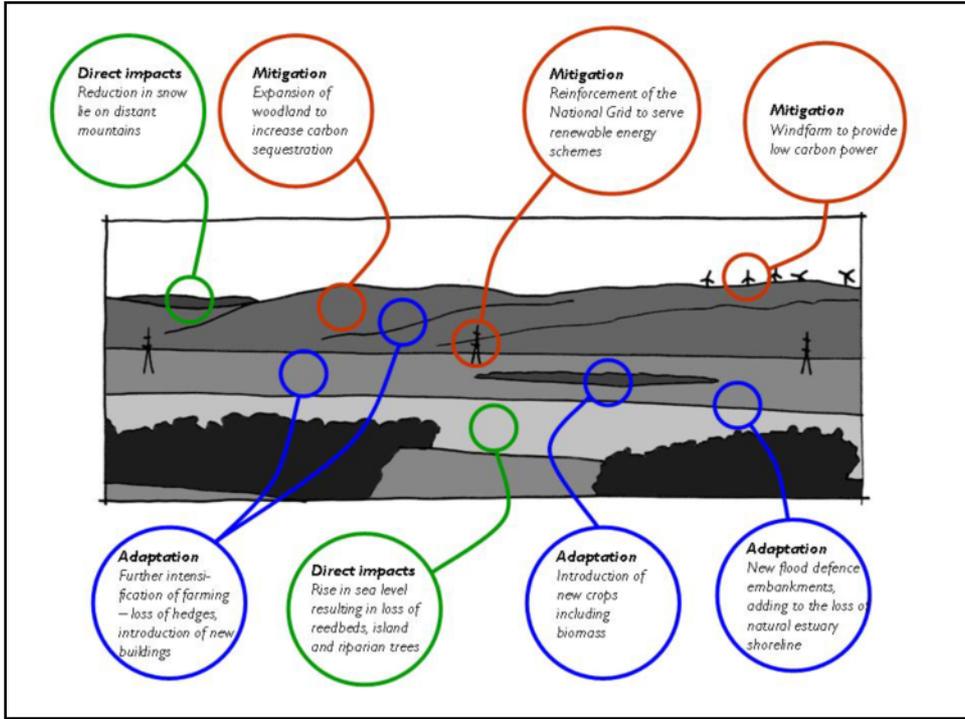
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Process

We would like you think about how climate change could affect the Carse of Gowrie – focusing on the strengths and weaknesses you identified last week.

There's information in the briefing packs about different types of change

Some could be positive, some might be negative, others you might be uncertain about

Work in pairs recording your views with the 'H' form...

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Adapting to Climate Change in the Carse of Gowrie
THEME: NATURAL ENVIRONMENT
FEATURE/STRENGTH/WEAKNESS: DRUMMOND CASTLE AND GARDENS

What negative effect could this have?	Will climate change have a negative or positive impact on this feature	What positive effect could this have?
	Score -3 to +3 Circle your score -3, -2, -1 0 +1, +2, +3	
	What physical changes do you foresee?	

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Paths
River Tay environment, heritage, history, fisheries
Wildlife and wildlife sites
Ancient trees and hedges + woodland
Flooding, soils and Pows
Historic buildings and villages
Historic gardens and designed landscapes, orchards, archaeology
Landscape and views across Braes and Carse
Transport – A90, minor roads, public transport, cycling
New housing development
Agriculture – polytunnels, soft fruit, orchards
IT and communication
Local businesses
Visitor and recreation attractions and infrastructure
Lack of local employment, commuting out of the area
Community facilities, schools and shops
Community organisations
Local crafts and local produce
Lack of renewables
Character and identity of the Carse of Gowrie

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Recreation	Walking, riding, cycling – routes and areas.
Tourism	Visitor activity, attractions, part of the way the area is promoted or portrayed
Learning	Formal and informal source of education about the natural and cultural heritage
Wildlife	Presence and awareness of important plants and animals
Food and timber	Cultivated crops, farmed sheep and cattle, game and wild food, timber
Freshwater	Source of drinking water
Fuel	Wood, peat, hydro, wind
Calm	Restorative benefits e.g. from woodland, or as a result of perceived remoteness
Inspiration	Resulting from beauty, drama, wild, romantic or powerful character of the landscape – can be individual or related to arts and literature
Escapism	Influence of remoteness, and escape from stress or reversion to childhood
Sense of place	Distinctive landscape contributing to identity of area or community
Sense of history	Permanence of natural landscape, evidence of history of human activity
Spiritual values	Religious or non-religious – character of the landscape, specific features or buildings etc.
Water regulation	Storing water, accommodating floodwater
Climate regulation	Storing carbon in soils and vegetation, providing shelter
Local economy	Local businesses (agriculture, food, hospitality, retail etc), investment
Employment	Local opportunities for jobs and training
Community facilities	Schools, health, village facilities, public transport, local shops
Community spirit	Community identity, culture, networks and organisations

Discussion

What are the main changes which could affect the Carse of Gowrie?

How do they compare with the scale and type of change that has taken place in the past 10 or 20 years?

Next time – will focus on these changes and explore the key challenges, choices and trade-offs

Thank you!

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