



A partnership approach to climate change research

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SNIFFER's aim is to increase knowledge to help protect our environment and improve quality of life



SNIFFER's aim

“To increase knowledge to help protect our environment and improve quality of life”

Three functions

We carry out 3 functions in order to deliver knowledge management:

- Research management
- Knowledge exchange
- Horizon scanning



Current topics

- Urban environment
- Climate change
- Environmental regulation
- Sustainable land use and water management

We currently manage over 50 projects on behalf of five member organisations and stakeholders.

15 employees



SNIFFER climate change activities

SNIFFER

- Manage climate change research on behalf of partners
- Act as secretariat for the Scottish Climate Change Impacts Partnership (SCCIP)



SNIFFER climate change activities

Research Management

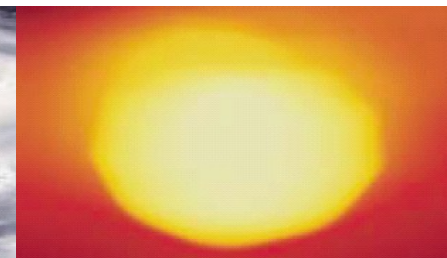
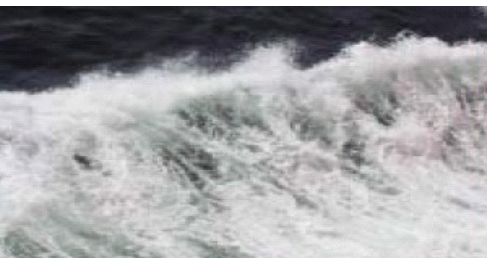
- Building a portfolio of projects since 2001
- Working with partners across Scotland and Northern Ireland to deliver new knowledge and information on climate change

Examples:

The business risks of climate change to public sector organisations

Survey of climate change activities for local authorities

Handbook of Climate Trends across Scotland





A handbook of climate trends across Scotland

- Key Partners: Scottish Natural Heritage, SEPA, Scottish Government, Forestry Commission and UKCIP
- Development of an online tool for users of data to access trends
- Following our innovative approach, DEFRA are now about to launch UK trends handbook



An online handbook of climate trends across Scotland

Presenting changes in the climate across Scotland over the last century

This is the online version of the printed handbook published by SNIFFER in May 2006 and available to download as a pdf from www.sniffer.org.uk. This web resource is identical in content to the printed edition, but offers greater flexibility of use and access to larger format maps and images. Please follow the menu on the right to access the twenty-four climate variables covered by this study.

The climate trends examined in this handbook provide benchmarks against which we can measure future change. They will be of value to users across a wide range of sectors and disciplines who are developing strategies to prepare for adapt to the impacts of a changing climate in Scotland.

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- Introduction
- Temperature related variables
- Precipitation related variables
- Air-pressure related variables
- Sunshine related variables
- Appendix
- Acknowledgments



SCOTTISH EXECUTIVE



Forestry Commission



<http://www.sniffer.org.uk/climatehandbook/>

1.7 LENGTH OF THE GROWING SEASON

Figure 14 - Length of the growing season (in days) each year for Scottish regions, from 1961 to 2004, with smoothed curves showing a running average.

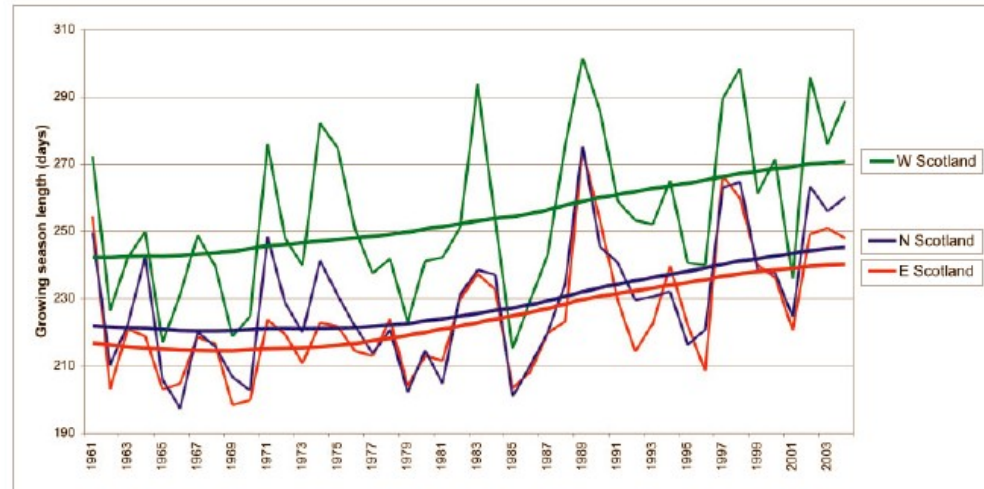


Table 8 - Changes in growing season length (in days) from 1961 to 2004. Values in **bold** show that we are 95% confident (statistically) that the change is part of a measurable trend.

	North Scotland	East Scotland	West Scotland	Scotland
Growing season length (days)	31.1	32.5	36.7	33.2

Regional trends

- In the early 1960s, typical values were a growing season of about 213 days in East Scotland, 217 days in North Scotland and 237 days in the West.
- All regions have seen an increase of more than four weeks in the length of the growing season since 1961.
- The increase in the length of the growing season is part of a clear trend in all regions.
- The West has shown the greatest increase and the North the least.



Current SNIFFER climate change research

Projects (2007/08)

- Reducing GHG Emissions across environmentally regulated Industry
- Climate change and organic soils
- Reducing greenhouse gas (GHG) emissions in Northern Ireland
- Social impacts of climate change



Minimising Greenhouse Gas emissions across environmentally regulated industry

- To identify the key areas of environmental regulation where levels of GHG emissions are not considered and to investigate solutions that would result in minimising emissions
- SEPA, EHS, SG, DOENI
- Project now let to Enviro Consulting
- Scheduled for completion by April 2008



Climate change, land management and erosion in the organic and organo-mineral soils in Scotland and Northern Ireland, and organic carbon stocks

- To provide a critical analysis of the factors controlling the rate of structural and chemical degradation of organic and organo-mineral soils in Scotland and N. Ireland
- SNH, SEPA, SG, AFBI
- Project now let to the Macaulay Institute
- Scheduled for completion by July 2008.



Measurement of Northern Ireland Greenhouse Gas and Carbon Dioxide emissions

- To calculate Northern Ireland's GHG and CO₂ emissions compared against the base year
- To enable NI to:
 - review performance;
 - separate out by sector emissions resulting from specific policies;
 - inform the roll out of the NI Sustainable Development Strategy.
- DOENI, EHS, OFMDFM, EA, SG
- Project now let to AEA Technology
- Scheduled for completion by March 2008



- Partnership working is key to sustainable climate adaptation
- Sectors must build capacity to adapt and must be aware of how their decisions affect other sectors



What is Adaptation?

- Adaptation refers to adjustment in natural or human systems in response to actual or expected changes in the climate or their effects, which moderates harm or exploits beneficial opportunities (IPCC definition)



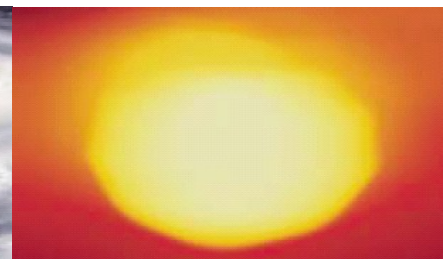
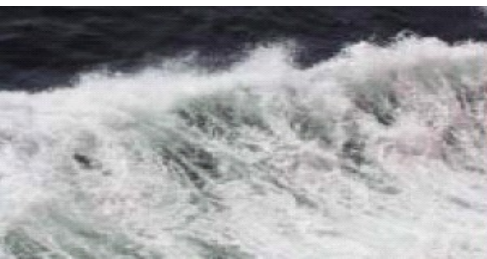
SNIFFER climate change activities

Partnership Working

- Co-ordinating the Scottish Climate Change Impacts Partnership
- Working with organisations in Scotland to prepare for climate change impacts

Knowledge Exchange

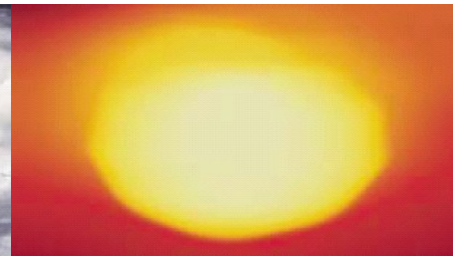
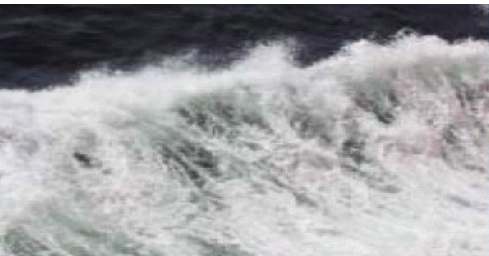
- Providing information on data, trends, tools and support





What is SCCIP?

- SCCIP is an initiative that brings together stakeholders in Scotland to collectively address and prepare for the impacts of climate change
- Commissioned by the Scottish Government to provide a research and knowledge management service

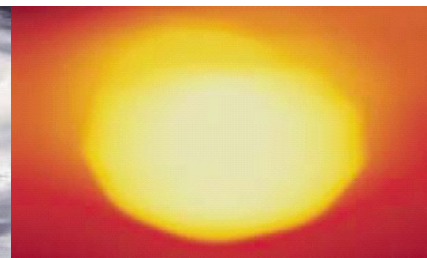
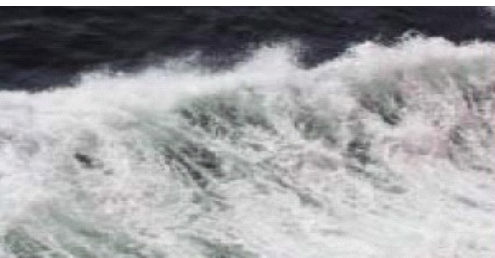




The Vision for SCCIP

SCCIP was established to

- “increase the resilience of organisations and infrastructure in Scotland to meet the challenges and opportunities presented by the impacts of climate change”

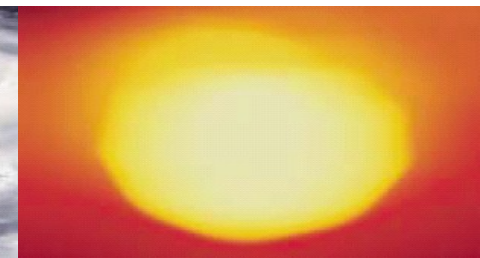
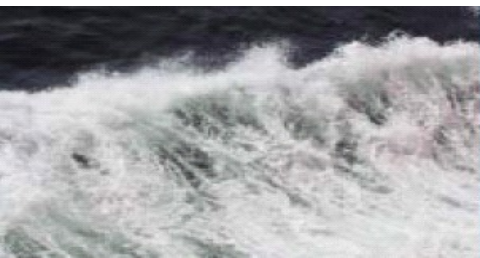




SCCIP Development Group

Members include

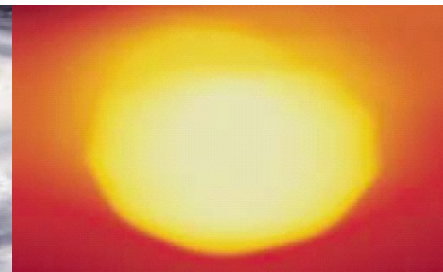
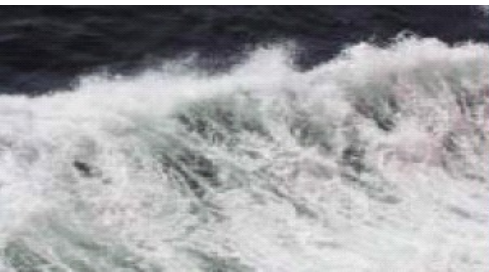
- Scottish Government (SG)
- Scottish Environment Protection Agency (SEPA)
- UK Climate Impacts Partnership (UKCIP)
- Sustainable Scotland Network (SSN)





SCCIP – outcomes to date

- Awareness raising workshops for Scottish Local Authorities on Climate Change Impacts
- Integrating Scotland's data requirements into upcoming Climate Change Scenarios for UK
- Highlighting adaptation activities within UK Adaptation Policy Framework
- Launch of new SCCIP website www.sccip.org.uk





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Climate change is happening now...

Climate change is one of the most serious threats globally. In Scotland, we are already feeling the effects with rising temperatures and more frequent winter storms impacting on our lives, our environment and the economy. Much of the change in climate over the next 30 - 40 years is already determined by our past and present emissions. Scotland will be increasingly affected by climate change in the future and it is essential that we act now to adapt sustainably and reduce our emissions.

The Scottish Climate Change Impacts Partnership (SCCIP)

The Scottish Climate Change Impacts Partnership (SCCIP) was established to "increase the resilience of organisations and infrastructure in Scotland to meet the challenges and opportunities presented by the impacts of climate change".

On this site you will find:

- » data on climate trends and impacts in Scotland
- » latest research and project information including sharing best practice
- » tools and resources to support action in adapting to and mitigating climate change
- » training and support events

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Research Projects

Find out more about the range of climate change research SCCIP and partners are involved in. The following links are categorised here according to the lead organisation for each piece of research work.

SCCIP Research

Read more about the [Scottish Climate Change Impact Partnership Research Projects](#)

Scottish Government Climate Change Research

Read more about the [Scottish Government Climate Change Research Projects](#)

Scotland and Northern Ireland Forum for Environmental Research (SNIFFER) Climate Change Research

Read more about the [SNIFFER Climate Change Research Projects](#)

SCCIP and Partners - all research

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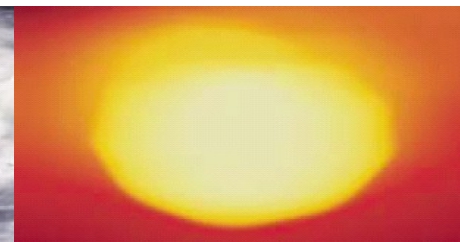
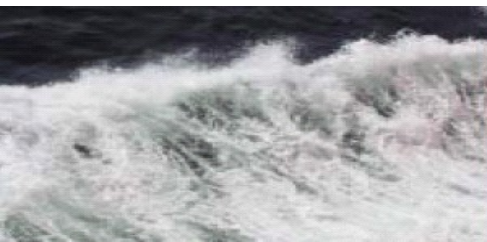
[Scottish Government Research](#)



SCCIP – current work programme

Focus on providing support and tools to sectors

- Research project for Local Authorities – climate change mitigation and adaptation tools
- Local Climate Impacts Profiles for Local Authorities
- Training courses on UKCIP08 Climate Change scenarios
- Further engagement with sectors this year to identify their support and capacity building needs





UKCIP

- DEFRA funded body as an Oxford University programme
- To enable the UK to be “adapting well” to unavoidable climate change impacts
- UKCIP adaptation toolkit available at www.ukcip.org.uk
- SCCIP work in liaison – local delivery mechanism in Scotland



UKCIP08 Climate Change Scenarios

- Launch in October 2008
- Probabilistic climate projections
- Marine projections
- Historical climate information
- Weather generator
- Roll out of Scottish pre launch workshops



Conclusions

- Partnership working can help to identify and set priorities for **collective action**
- **Efficiency gains** by sharing resources, information and knowledge
- Acts as a focal point to **heighten awareness and importance** of climate change



SCCIP next steps

Current work programme funded until end March 2008

- Proposals for SCCIP - 2008/11

What are your views ?

- Priorities for SCCIP
- Opportunities for joint working
- Research gaps

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