



South West Climate Change Impacts Partnership (SWCCIP)

Guidance from the South West Climate Change Impacts Partnership on National Indicator 188: Planning to adapt to climate change

The South West Climate Change Partnership (SWCCIP) works to investigate, inform and advise on the impacts of, and appropriate adaptation responses to, climate change in the South West. We influence the strategies and plans of key partners and work with stakeholders across key sectors to enhance the region's resilience to the impacts of climate change.

This guidance is designed to be read in conjunction with the Environment Agency National Indicator 188 guidance. Here we provide a comprehensive list of references that will help local authorities source the information they need to be able to deliver National Indicator 188. In addition to generic information about climate change adaptation and advice for local government, regional and sector specific information regarding agriculture, biodiversity, business, the built environment, health, tourism and transport is included where available.

We would particularly recommend that you make use of the UK Climate Impacts Partnership (UKCIP) Adaptation Wizard and the Nottingham Declaration Action Pack, and undertake a Local Climate Impacts Profile.

General science and information

Contacts

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Warming to the Idea: meeting the challenge of climate change in the South West (2003)

– A SWCCIP scoping study that reports on the likely effects of climate change on the South West, and sets out some actions necessary for adaptation to these impacts. Includes summaries of impacts and actions sector by sector.

www.oursouthwest.com/climate/scopingstudy.htm

SWCCIP Adaptation Case Studies (2008) – A compilation of case studies from several sectors, demonstrating climate change adaptation best practice.

www.oursouthwest.com/climate/registry/adaptation-case-studies-swccip-v0708.doc

<http://www.oursouthwest.com/climate/registry/adaptation-business-case-studies2007-08.pdf>

Pitt Review: Independent Review into the floods of 2007 - A report produced following an independent enquiry which examined the emergency response to the 2007 flooding and investigated how we can reduce the risk and impact of floods in the future.

http://www.cabinetoffice.gov.uk/~media/assets/www.cabinetoffice.gov.uk/flooding_review/pitt_review_full%20pdf.ashx

The Climate of the United Kingdom and Recent Trends (2007) – This is the first of a series of UKCIP08 reports. It provides detailed information about the observed climate of the UK. http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=469&Itemid=477

UKCIP08 Scenarios - UKCIP08, due for release in spring 2009, will provide users with probabilistic data on impacts occurring, improved spatial and temporal resolution for a range of variables though a variety on tools, reports and pre-prepared maps and graphs. For more information visit www.ukcip08.org.uk

Met Office website – The climate change section of the Met Office website contains available data sets on 28 weather parameters. These form the basis of the Recent Trends report (see above) and can be used to help inform research on observed climate. <http://www.metoffice.gov.uk/research/hadleycentre/obsdata/ukcip/index.html>

UKCIP Adaptation Wizard – A UKCIP tool to help you adapt to climate change. Guides you through a 5-step process that will help to assess vulnerability, identify options and help you to develop and climate change adaptation strategy. http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=147&Itemid=297

UKCIP National Case Study Database – UKCIP's website offers access to a variety of case studies of adaptation actions in the South West and beyond. The database is searchable by region, sector or adaptation type. http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=286

UKCIP spreadsheet costing tool. This tool provides a method to estimate both the current and future probabilistic costs of climate change impacts on an organisation, event or area. These estimations can then be used to inform adaptation measures. http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=366&Itemid=9

Adaptation to Climate Change in England: a framework for action (2008) – A Department of Environment, Food and Rural Affairs (defra) document that sets out what Government has done, and will be doing, to help England adapt to climate change. Contains an overview of the impacts of climate change, the need for action, and provides details on phase 1 of the Adapting to Climate Change Programme 2008 – 2011. Also includes a variety of case study examples. <http://www.defra.gov.uk/environment/climatechange/adapt/pdf/adapting-to-climate-change.pdf>

Defra Adapting to Climate Change website – Contains information about how the climate is changing and what this means for the UK; what the Government is doing to prepare for the impacts; and more about information tools and case studies to enable everyone to take action. www.defra.gov.uk/adaptation

Local Government

Contacts

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Climate Change Adaptation and Local Authorities: Be Aware, Be Prepared, Take Action (May 2008) – Guidance document on how to integrate climate change adaptation strategies into local government - from Local Government Association, Environment Agency and UKCIP:

www.oursouthwest.com/climate/registry/lga-be-aware-be-prepared-take-action-2008.pdf

NI 188: Prioritised risk-based assessments and the Civil Contingencies Act 2004

The Government Office South West (GOSW) and SWCCIP have produced a guidance note on how the existing requirements under the Civil Contingencies Act 2004 (CCA) supports the actions required under NI 188 so that local authorities/Local Strategic Partnerships can avoid duplication of effort. Download from:

<http://www.oursouthwest.com/climate/registry/CCA-and-188.pdf>

Local Climate Impacts Profile (LCLIP) – This tool is designed to enable local authorities to understand how their council services are affected by historical climate events and how they can learn from such experience to adapt to a future climate.

www.ukcip.org.uk/index.php?option=com_content&task=view&id=278

UKCIP have been holding workshops to inform local authorities of LCLIP. Presentations from the latest workshops can be downloaded from:

www.ukcip.org.uk/index.php?option=com_content&task=view&id=321&Itemid=9

Nottingham Declaration Action Pack - The Nottingham Declaration and its accompanying 'Action Pack' provides an online resource for local authorities looking to adapt to (and mitigate against) the impacts of climate change. The action pack includes examples of measurable targets for Local Authority Agreements, as well as further guidance and information. Online resource for local authorities looking to adapt to (and mitigate) impacts of climate change.

www.nottinghamdeclaration.org.uk

Agriculture and forestry

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Woodland Trust – Justin Milward

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Wildlife Friendly Farming Guide (2006) – Updated in November 2006 by the Royal Agricultural College, this unique www.oursouthwest.com and SWCCIP guide gives month by month advice to help farmers protect biodiversity whilst adapting to climate change: www.oursouthwest.com/farming/farming1.htm

Climate Change in the South West : a practical guide for woodland owners and agents (2006) – a guide that describes the impacts of climate change on the woodlands and forests of the South West and the potential adaptation responses.

[www.forestry.gov.uk/pdf/swe-fc-climate-change.pdf/\\$FILE/swe-fc-climate-change.pdf](http://www.forestry.gov.uk/pdf/swe-fc-climate-change.pdf/$FILE/swe-fc-climate-change.pdf)

Climate Change and Agriculture (2005)- A report produced by the National Farmers Union looking at the expected impacts of climate change on farming. Includes a short discussion of adaptation options. www.nfonline.com/x3452.xml

Climate Change and Land Management (2005) - a report by Rothamsted Research including details of climate change impacts and adaptation options for agriculture.

<http://www.rothamsted.ac.uk/intopractice/ClimateChange.html>

Climate Change and the Rural Economy (2001) – a policy statement by the Country Land and Business Association Climate Change Working Group that focuses on the impacts of climate change on owners and managers of rural businesses in England and Wales and includes adaptation recommendations.

www.cla.org.uk/Policy_Work/Policy_Reports/Environment/Climate_Change/2555.htm/

Farming Futures - a communications collaboration between the National Farmers' Union, Country Land and Business Association and the Agricultural and Horticultural Research Forum (representing the agricultural and horticultural levy boards), the Agricultural Industries Confederation, Forum for the Future and Defra. Farming Futures can help farmers prepare for the impacts of climate change. Its website contains a variety of relevant information: www.farmingfutures.org.uk/

Wellesborne Horticulture Research International – The HRI website includes information on a variety of research projects relating to agriculture and climate change adaptation. In particular, see the sections on the Innovation Network, Ecosystem Services for Climate Change Adaptation in Agricultural Land Management and Plant Water Use. Available at: <http://www2.warwick.ac.uk/fac/sci/whri/research/climatechange/>

Biodiversity

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Biodiversity South West – Naomi Brookes
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South West Nature Map – A map showing ‘Strategic Nature Areas’ in the South West that represent the best areas for focus with regards to the conservation, creation and connection of wildlife habitats at a landscape scale. The draft Regional Spatial Strategy (supporting paragraphs 7.2.9 and 7.2.11) and Policy ENV4 make specific reference to the use of Nature Map by local authorities for mapping opportunities to increase biodiversity’s resilience to climate change. The website includes a link to ‘Guidance for local planners on incorporating Nature Map into Local Development Frameworks’. www.biodiversitysouthwest.org.uk

Biodiversity and Adaptation to Climate Change – an advice note for local authorities (2008) – A guidance note for local authorities produced by the West Midlands Biodiversity Partnership. Includes an explanation of the potential impacts of climate change on biodiversity and a set of adaptation principles. Available from the Yorkshire and Humber Environment Hub website: www.yourclimate.org/cb.aspx?dom=&page=92E62F54-D9C4-4960-B503-9A0672E32EBD

BRANCH project Final Report (2007) – A Natural England publication by the BRANCH partnership which includes recommendations for integrating biodiversity and climate change adaptation into spatial planning. Also contains case study examples both in the UK and across Europe. www.naturalengland.co.uk/press/docs/branch-report.pdf

Climate Change Wildlife and Adaptation: 20 tough questions, 20 rough answers (2007) – an RSPB publication which details the impacts of climate change on wildlife and outlines adaptation options for helping biodiversity and the RSPB’s approach to conserving wildlife in the context of a changing climate. www.rspb.org.uk/Images/climatechange20questions_tcm9-170121.pdf

Conserving Biodiversity in a Changing Climate: guidance on building capacity to adapt (2007) – Describes observed changes to biodiversity and presents six guiding principles on how to reduce the impacts of climate change on biodiversity and adapt existing plans and projects. Includes suggestions on what can be done to increase the ability of natural systems to absorb and respond to climate change.

<http://www.ukbap.org.uk/Library/BRIG/CBCCGuidance.pdf>

Modeling Natural Resource Responses to Climate Change (MONARCH) – The MONARCH project is based at the Environmental Change Institute at Oxford University. It investigates the impact of climate change on the nature conservation resources of the UK and Ireland and explores the consequences of these changes for the ecosystem. Detailed information can be found on the website:

www.eci.ox.ac.uk/research/biodiversity/monarch1.php

Built environment

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Constructing Excellence – Tom Harper

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Planning and design

Checklist South West – An easy to use online tool giving advice for sustainable developments in the South West. The tool focuses on regionally specific issues and provides guidance on assessing sustainable designs, including consideration of adaptation features.

www.ChecklistSouthWest.co.uk

Development and Flood Risk - Practice Guide (2008) - This practice guide is complementary to Planning Policy Statement 25: Development and Flood Risk (PPS25) and provides guidelines on how to implement development and flood risk policies by the land use planning system. The guide also includes working examples through case studies. Available from the Communities and Local Government website:

www.communities.gov.uk/publications/planningandbuilding/pps25practiceguide

The Essential Role of Green Infrastructure: eco-towns green infrastructure worksheet (2008) - A Town & Country Planning Association (TCPA) publication which provides guidance on multifunctional green networks including allotments, community gardens, sustainable drainage systems (SUDs) and flood storage areas. Explains the role that green infrastructure has to play in adapting to climate change (see chapter 1.1)

www.tcpa.org.uk/ecotowns/20081020_ET-WS_Green_Infrastructure.pdf

Public Space Lessons: adapting public space to climate change (2008) – a briefing report from the Commission for Architecture and the Built Environment (CABE) setting out the lessons learned, nationally and internationally, from using public spaces to adapt to climate change. www.cabe.org.uk/default.aspx?contentitemid=2604

Climate Change Adaptation by Design: a guide for sustainable communities (2007) – This guide from the TCPA describes the main national and international policy drivers for adaptation action. It then uses practical examples to illustrate options for adaptation in the built environment on the catchment, conurbation, neighbourhood and building scale.

www.tcpa.org.uk/downloads/20070523_CCA_lowres.pdf

Adapting to Climate Change: a checklist for development (2005) - The South East Climate Change Partnership (SECCP), Sustainable Development Round Table for the East of England and the London Climate Change Partnership have developed useful guidance on

designing developments in a changing climate. This takes the form of a checklist and includes signposts to more detailed guidance where relevant.

www.oursouthwest.com/climate/registry/checklist-for-development-nov-2005.pdf

Adapting to Climate Change: a case study companion to the checklist for development (2005) An accompanying booklet to the above report which contains case studies demonstrating techniques or design features that improve resilience to the impacts of climate change. <http://www.london.gov.uk/lccp/publications/docs/adapting-climate-change-case-study-ver2.pdf>

The Code for Sustainable Homes - Aims to increase the environmental performance of homes, above building regulations. Compliance will raise awareness with householders, improve water efficiency and management of surface water run-off in new homes. www.planningportal.gov.uk/england/professionals/en/1115314116927.html

The Code for Sustainable Homes: technical guide (2008) – Technical guidance that sets out the requirements of the above code, and the process by which assessment is reached. <http://www.communities.gov.uk/publications/planningandbuilding/codeguide>

European Spatial Planning: adapting to climate events (ESPACE) – A 5 year project that aims to ensure adaptation strategies are incorporated into spatial planning systems. The project models offer practical examples of water storage facilities and procedures to facilitate implementation. The approach is broadly transferable to UK land use planning and climate change adaptation. A climate change guide for planners was also produced. See www.espace-project.org

Existing buildings

Your Home in a Changing Climate: Retrofitting Existing Homes for Climate Change Impacts (2008) - The Three Regions Climate Change Group has produced this report for policymakers which explores the potential for retrofitting existing homes to protect against three impacts of climate change; flooding, water stress and overheating. It outlines why adaptation is important, what adaptation actions can be done, and how this adaptation can be delivered. Copies of the report are available on the website www.london.gov.uk/trccg.

Beating the Heat – Keeping UK buildings cool in a warming climate (2005) – A UKCIP / Arup / Department of Trade and Industry (DTI) publication, this report examines the likely implications of climate change for increased temperatures in existing buildings and sets out the measures that can be taken to keep buildings cool without the need for mechanical cooling systems. The report can be downloaded from the Arup website: www.arup.com/assets/download/download396.pdf

Climate Change & Your Home - Interactive web portal from English Heritage designed specifically to help those who own or manage houses built of traditional construction understand more about the potential impacts of climate change. www.climatechangeandyourhome.org.uk/live/homepage.aspx

Business

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A Changing Climate for Business: business planning for the impacts of climate change (2005) - A UKCIP report containing key messages and suggestions of initial adaptation actions for businesses and organisations. Includes the **Business Areas Climate Impacts**

Assessment Tool (BACLIAT), a practical tool to help organisations understand, assess and respond to, the threats and opportunities presented by climate change.
www.ukcip.org.uk/index.php?option=com_content&task=view&id=82&Itemid=374

Climate Change and Small Businesses (2008) - The results of a study, commissioned by Climate South East, investigating the attitudes of directors and managers of Small and Medium Enterprises (SMEs) towards climate change. It provides an indication of small business perceptions of climate change impacts and current levels of response.
http://www.climatesoutheast.org.uk/images/uploads/Climate_Change_and_Small_Businesses_Final.pdf

Adaptation: an issue brief for business (2008) - This report, published by the World Business Council for Sustainable Development, examines the potential impacts of climate changes on business, risks and opportunities, the business case for adaptation planning, and highlights areas in which business could have a role in promoting adaptation, both at community and global levels.
www.wbcd.org/DocRoot/2W6plkEp3ra0vRDXZ961/Adaptation.pdf

Preparing for Climate Change: a practical guide for small businesses - Sets out the evidence of climate change and the impacts of severe weather events. Provides advice on what businesses can do to reduce the risks, including building resilience, developing a business continuity plan and ensuring adequate insurance cover.
http://www.axa.co.uk/aboutus/corporate_publications/climatechange_docs/AXA%20Preparing%20for%20climate%20change.pdf

Health

Contact

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Health effects of climate change in the UK (2008) - A Department of Health commissioned report written by a group of independent scientists, detailing the impacts of climate change on health in the UK. Includes discussion and recommendations on adaptation issues and policies.
www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_080702

The Health Impact of Climate Change: promoting sustainable communities - guidance document (2008) - A guidance document produced for the Department of Health by the South East Regional Public Health Group. Includes advice for public health professionals on considering the health impacts of climate change and on how societies can adapt appropriately.
www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_082690

Heatwave Plan for England 2008 – Intended to help enhance resilience in the event of a heatwave, this document produced by the National Health Service is particularly relevant in the context of adapting to the effects of climate change. Includes advice for the public on protective measures.
www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_084670

Flooding and risks to health – The Health Protection Agency's website includes advice on the risks posed by flooding, and the precautions that can be taken.

www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1158934608011?p=1158934608011

Tourism

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Adaptation Checklist for Tourism Businesses (2007) – This Adaptation checklist for tourism businesses has been funded by SWCCIP, South East Climate Change Partnership and Devon County Council to explain to tourism business owners how climate change affects their business. www.oursouthwest.com/climate/registry/tourism-leaflet-2007.pdf

Case studies - SWCCIP Tourism Adaptation Case Studies on Kitley House Hotel and The National Trust are available to download at: www.oursouthwest.com/climate/case-studies

Shifting Shores in the South West (2008) – A National Trust publication that looks at what climate change means for the South West coast and what can be done to minimise the risks. It identifies the National Trust sites which are particularly at risk, focussing on the impacts of climate change on wildlife, the historic environment, the coastal economy and public access. An outline of what the Trust is doing to protect these sites is also given.

http://www.nationaltrust.org.uk/main/w-global/w-news/w-latest_news/w-news-shifting-shores-report/

Flooding: minimising the risk – A flood risk pack giving practical advice for caravan/camping sites. See the Environment Agency NI188 guidance for details.

Transport

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Assessing the Impacts of Climate Change on Transport Infrastructure (2008) – a Rail Safety and Standards Board (RSSB) publication following a joint RSSB, Network Rail and Environment Agency project to predict the impact of climate change on the railway coastal and estuarine defence assets in the Dawlish area.

www.rssb.co.uk/pdf/reports/research/T643_rpt_final.pdf

The Changing Climate: Impact on the Department for Transport (2005) - A report identifying key impacts of climate change and what they mean for transport. Includes recommendations to ensure preparedness. Available from:

www.dft.gov.uk/strategy/climatechangeimpacts/dftreport

For further information or to comment, email: Climatechangeimpacts@dft.gsi.gov.uk

Safety Implications of Weather, Climate and Climate change (2004) – An RSSB report identifying the implications of weather and climate change related hazards on the railway. Outlines the major climate factors effecting transport and the impacts that need to be addressed.

www.rssb.co.uk/pdf/reports/research/Safety%20implications%20of%20weather,%20climate%20and%20climate%20change.pdf