

Climate change and tourism in the south of England



**What can your tourism business
do to adapt?**

Managing risk - maximising profit

Although single events - like a big storm, flood or drought - are not by themselves proof of climate change, the trends of climate change are already having an impact on the south of England, including tourism. For example, climate scientists state that man-made climate change contributed to the 2003 heatwave. In the UK, we do know that events like these are expected to increase, particularly for the south of England.

We need to adapt now by minimising risks and likely damage. This will offer new business opportunities.

Is the climate already changing



Yes. And we are all being affected by it. Our climate has always changed as a result of natural influences, but our everyday activities are now adding to this. Globally, the speed of the changes we are seeing now and expect in the decades ahead is unprecedented. While there is still some uncertainty about the future climate, what can't be disputed is that change is happening.



■ **Temperature:** the five hottest years on record for the UK as a whole have all been since 2000. The UK's highest temperature of 38.5°C was recorded in the south of England in the 2003 heatwave.



■ **Sea levels:** between around 1915 and today, the mean sea level has risen by approximately 15cm at Newlyn in Cornwall and by 20cm at Sheerness in Kent.

■ **Wave height:** the average wave height from trough to crest has increased by approximately half a metre since the 1960s. This will accelerate coastal erosion.

■ **Coastal water temperature:** this has gone up by 0.5°C in the last century and is increasing at a faster rate than land temperature.



■ **Growing season:** this has lengthened by about 1 month since 1900. Spring flowers bloom earlier and grass grows for a greater proportion of the year.

■ **Flooding:** there has been extensive flooding in the last few years. Boscastle in 2004 may have been an extreme example, but all the indications are that we will experience more severe weather events, and more properties will be affected.

What are the projections for the future ?

Further climate change is now inevitable over the next 40 years. In the longer-term (2050s and beyond) climate change depends on how much greenhouse gas we put into the atmosphere, so the experts describe a range.

- **Temperature:** by 2050 summers in the south of England will be between 1.5 and 3.5 °C warmer, and winters 1 to 2 °C warmer than now. So hotter summers and milder winters are in store.
- **Rainfall:** by 2050 summers will be 15 - 30% drier and winters 5 - 15% wetter than now, and heavy winter rainfall will be more common, but the number of days with snowfall will decrease significantly.
- **Storms:** there are likely to be more storms, leading to damage and flooding.
- **Sea level rise:** sea levels in the south of England are expected to rise dramatically - up to 10 times the rate of rise in the last century.

Some of these figures may not sound that significant - some may even sound quite attractive - but they represent greater change to our environment in the next 50 years than in the previous 1000 years! Our wildlife, our landscapes and our communities will need to cope with significant changes. We need to adapt to new conditions.

How might tourism be affected ?

Many of the changes are of particular relevance to tourism and some trends are already apparent. Hotter summers and milder winters are both likely to mean more domestic and overseas visitors to the south of England. Impacts on tourism destinations are likely to include:

In the countryside:

- A bigger market for places to stay and visit, things to see and do and places to eat and drink. There will be more potential problems of congestion and pressure on services.
- A different appearance to some landscapes as some crops, species of animals, birds and plants become less viable and are gradually replaced by others.
- Likelihood of greater storm damage to woodlands.

In towns and cities:

- Greater accommodation demand.
- Greater demand for open space in summer, but also need for shade.
- Café culture/outdoor refreshments likely to expand.

In river valleys - rural and urban:

- Less water in streams and rivers in summer.
- Flash flooding after torrential rainfall events - damage to land and buildings, particularly in narrow valleys and in floodplains.

On the coast - coastal towns and on the undeveloped coast:

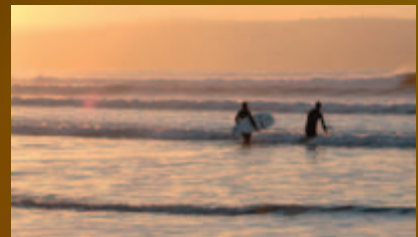
- A bigger tourism service economy and more jobs, but also more traffic congestion and pressure on water supplies, sewage capacity and health facilities.
- Storm damage to buildings, harbours, woodland/trees, gardens, caravan and camp sites, especially in exposed locations.
- Potentially, the loss of some beaches through sea level rise and loss of access to others due to tide cut-off.
- Coastal flooding after storms.
- Greater opportunities for water based tourism but also risks from extreme events.
- Temporary loss or closure of infrastructure - power lines, roads, rail lines, and coast paths severed by storm damage or flooding.



Birling Gap : accelerated coastal erosion, NTPL



Flooded playground in Oxfordshire, March 2004, Tanya Mennie



Godrevy, Cornwall : further growth in water based activities A. Watson



Stourhead Gardens: algal blooms on the lake due to increased water temperature, S. Ford



Dry reservoir with hopeful angler, East Sussex, March 2004, Southern Water

What can you do as a tourism business ?

We can all play our part in preventing climate change accelerating even faster by:

- Being much more energy efficient.
- Reducing unnecessary travel.
- Generating renewable energy and/or switching to a green energy tariff.

But we need to adapt to the inevitable impacts of a changing climate too.

- As a first step, use the checklist to assess your risks and what you can do now to minimise them.
- Try to ensure your buildings can cope with the new climate in terms of ventilation and temperature, and resilience to gales and downpours.
- Be prepared to innovate and rise to the challenge to adapt to changing and unpredictable environments.
- Check your insurance - properties close to sea level and near to the coast could also see increased risk of coastal inundation when high tides coincide with storm surges. The Environment Agency produces maps showing the areas most at risk. Do not locate new business in an area prone to greater flooding.

“...climate change does offer some opportunities as well as threats”.

For instance, the National Trust is experiencing increasing storm damage which affects how it manages its buildings, gardens, open spaces and coast. But the Trust can also see how drier summers and longer growing seasons are leading to an increase in visitor income year round, informing their management decisions.

Points to remember:

You need to be flexible and plan to adapt your business to minimise your risk and maximise your opportunities.

- **The climate is changing already and will increasingly change in the coming decades.**
- **The main changes are likely to be hotter drier summers, heavy storms and downpours and higher sea levels.**
- **The impacts on tourism will be a mixture of good and bad news - there is the potential for further growth in tourism business, but some areas are at higher risk, particularly in low lying land or right on the coast.**
- **You need to be flexible and plan to adapt your business minimise your risk and maximise your opportunities.**

To find out more about climate change issues, visit these websites:

- www.oursouthwest.com/climate
- www.climatesoutheast.org.uk
- www.ukcip.org.uk
- www.environment-agency.gov.uk
- www.swtourism.co.uk
- www.industry.visitsoutheastengland.com
- www.green-business.co.uk

Your checklist for planning for climate change impacts

Climate change will affect 'normal' weather and lead to more extreme weather incidents. This checklist complements the Green Tourism Business Scheme, a practical tool to help reduce your contributions to the causes of climate change e.g. through energy efficiency, renewable energy, improved transport practices etc. You can view the GTBS materials at www.green-business.co.uk or telephone 01738 632162 for further information.

1. Your business and extreme weather events

Climate change will lead to more storms, floods, drought and other extreme conditions.

Vulnerability to flooding and storms (including coastal)

Possible impacts on your premises

- Condition / safety of your buildings, including damage to basements, ground floor, rooms and electrics
- How your staff, suppliers or customers access your site

What you can do

- Check the Environment Agency 'flood risk' maps for your area www.environment-agency.gov.uk or call 0845 9881188
- Regularly check reports on local roads, weather, tides and flood alert
- Consider preparing a Flood Response Plan
- Check options for improved site drainage (e.g. sustainable drainage systems, permeable surfaces for car parks etc)
- If in a high risk area, consider moving electric points, furnishings etc above likely flood levels - or even relocating your business when practical
- Keep a stock of sandbags
- Regularly check building conditions, insurance cover etc
- Update contacts for local services (builders, plumbers etc)

Possible impacts on your financing, insurance, purchasing, health and safety

- Cost / availability of insurance cover, bank overdrafts, mortgage

What you can do

- Check your insurance cover and improve it if practical
- Review health and safety procedures

Vulnerability to drought

Possible impacts on your premises

- Restrictions on water uses (e.g. hosepipe ban) or supplies (e.g. stand pipes)
- Deterioration to condition of green spaces and flower beds

What you can do

- Install water butts and/or grey water recycling
- Review and install water efficiency devices
- Plant drought resilient plants
- Advise customers to minimise water use

Vulnerability to heatwave

Possible impacts on your premises

- Health of your staff and customers
- Animal welfare
- Increased fire risks

What you can do

- Reconsider work schedules and conditions, especially for outdoor and kitchen staff
- Identify new business opportunities to change use of premises in heatwave conditions

Vulnerability to landslip (e.g. coastal locations with known risk)

Possible impacts on your premises

- Access to your site
- Public / staff safety

What you can do

- Consider possible changes to access routes
- Check your insurance cover and improve it if practical
- Consider relocation out of high erosion or landslip risk areas

2. Your business and changes to our 'normal' weather patterns

Climate change is altering our seasonal weather patterns.

Hotter drier summers

Possible impacts on your premises

- Grounds management - plant health
- Health and comfort of your staff and customers
- Use of your outdoor areas
- Subsidence of buildings or cracking of render

What you can do

- Consider heat / drought tolerant plants
- Provide more shaded areas
- Review cooling and ventilation - around and within buildings (avoid use of air conditioning)
- Check buildings regularly for subsidence or cracking and check your insurance cover

Possible impacts on your financing, insurance, purchasing, health & safety

- Demand for refreshments in hot weather vs. availability of supply
- Increased risk of sunburn and sunstroke

What you can do

- Consider what your customers might need in hot weather and how you can supply it
- Review your health and safety plan and practices

Warmer, wetter winters

Possible impacts on your premises

- Grounds management - extended growing season for lawns, plants, weeds and pests
- Increased risk of damp and mould in buildings

What you can do

- Opt for a less manicured garden (and explain why) and extend management into winter
- Regular maintenance of roofs, gutters and drains to clear debris
- Regular inspection of damp prone areas

More episodes of intense rainfall

Possible impacts on your premises

- Increased incidence of flash flooding, erosion of earth surfaces and soil run-off
- Increased water penetration through roofs and walls
- Blockage of gutters and drains

What you can do

- Consider resurfacing paths, car park with permeable materials
- Regular checks and maintenance of gutters and drains
- Review suitability of roof and wall surfaces

Increasing sea levels

Possible impacts on your premises

- Increased risk of erosion, such as landslip

What you can do

- Review landscaping where appropriate
- Relocate out of areas at high risk

Changes to our normal weather patterns can also have impacts on your local area, for example as habitats change, wildlife needs to migrate to more suitable conditions. These impacts could affect your service to customers. You can help by changing your planting and landscaping to create new habitats on site to attract wildlife. You can market new attractions to customers and make use of other new attractions in your area.

And finally, remember to include options for improving resilience to extreme events and changing weather trends when you plan for major changes to existing premises, building new premises or relocating to a new area. And don't forget that you can introduce many measures (now and as you introduce other changes) to help reduce the causes of climate change. By both reducing the cause and preparing for the impacts of climate change, you can help your business survive and prosper in the years ahead.