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Living with climate change in the **East of England**

Businesses

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Is the climate in the East of England changing?

"there is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities¹"

Our climate is changing and will continue to change over this century and beyond. The East of England will experience:

- * Hotter and drier summers
- * Milder and wetter winters
- * More extreme climate events
- * Increased risk of flooding in some areas
- * Rising sea levels, increasing the risk of coastal flooding and erosion.

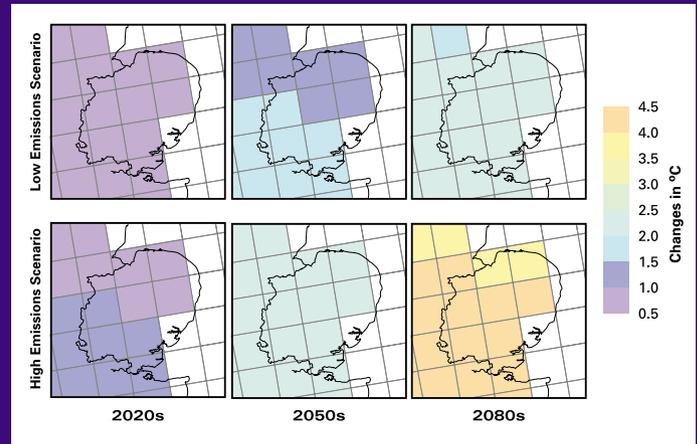


Fig 1 Change in Annual Temperature

Climate change will create both opportunities and threats for businesses. For example, warmer summers may lead to changing patterns of demand for products and services, whilst wetter winters will increase flood risks to property. It is essential that businesses in the East of England are aware of the opportunities and threats posed by climate change, and take action to respond now.

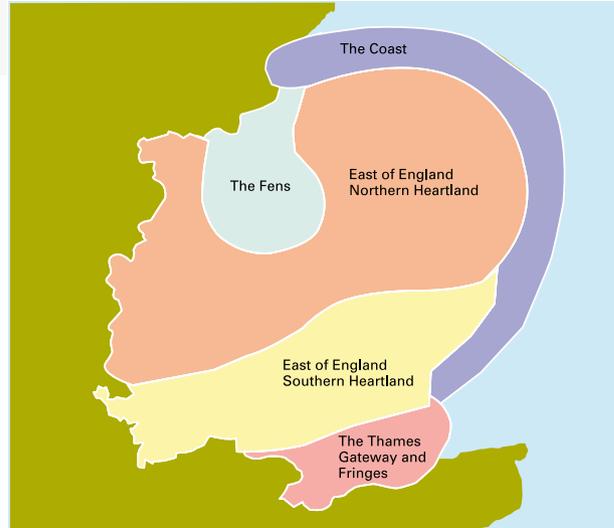


How is the East of England Region responding?

the East of England is at the forefront of developing regional climate change adaptation guidance

In response to the pressures and opportunities created by climate change, several organisations have come together to produce guidance on 'Living with climate change in the East of England'. The intention is to support businesses, local authorities and the public in living with, rather than fighting against climate change.

This leaflet provides an outline of the guidance for business; the full guidance is available on the Sustainable Development Round Table's website at www.sustainability-east.com, which includes guidance for local authorities and other agencies providing public services.



Climate change sub-regions

different areas face different impacts

The East of England is particularly vulnerable to the impacts of climate change; it is low-lying which puts it at risk of coastal flooding and some areas are prone to water deficiencies, especially the south. It is also well placed to take advantage of some of the impacts of climate change.

The guidance identifies climate change impacts and sets out suggested adaptation measures, using a sub-regional approach. This recognises that different sub-regions face distinctive sets of climate change impacts which will require different adaptation responses.



Adaptation versus mitigation

Responses to climate change should involve **mitigation** against the causes of climate change (e.g. reducing greenhouse gas emissions) and **adaptation** to the impacts of climate change. Both are very important. This guidance concentrates on planning for adaptation in order to minimise the adverse impacts of climate change and to take advantage of the opportunities created.



Who is this guidance for?

all businesses must start thinking about how they will be affected by climate change

The guidance is designed to assist businesses in the East of England in adapting to climate change. It is particularly relevant for people who make **decisions** in relation to **estates management, demand forecasting and risk management**.

The following business domains are addressed:

- Energy services
- Transport infrastructure and gateways
- Agriculture and food processing sector
- Automotive sector
- Financial and business services
- High tech manufacture and advanced engineering sector
- ICT sector
- Life sciences sector
- Media and cultural industries
- Tourism, leisure and heritage sector



Why take account of climate change?

our climate is already changing and it will continue to change throughout this century

Recent extreme weather events, such as the flooding in the autumn and winter of 2000, have shown that climate can have a big impact on our society, with associated financial costs.

The impacts of climate change are likely to become increasingly evident in the coming decades and will affect many of your business' services, assets and infrastructure. For example, supply lines may face disruption, demand for goods may change, infrastructure will become increasingly vulnerable, and construction projects may face delay. Indeed many of these impacts are already being felt. If businesses do not plan for and respond to these pressures appropriately, costly remedial action which could have been avoided is likely to be required.

If resilience to change can be incorporated into decisions taken today businesses will be better prepared for the future. It is in the interest of businesses to act now to find sustainable solutions that allow for climate change.



the costs of flood damage to the insurance industry

A report by the Association of British Insurers identified that total claims in the order of £50 - £120 million are made per annum as a result of flood damage.

Summarised from Association of British Insurers General Insurance Research Report no. 10, Inland Flood Risk ? Issues Facing the Insurance Industry, October 2000.

What about uncertainty in understanding of climate change?

invest now to avoid even greater costs later

Whilst there is some uncertainty surrounding climate change and the associated risks, this is being reduced as better information becomes available. The risk of not acting in good time is ever present. Failing to plan for the future could potentially increase risk and incur higher costs and more disruption as the climate changes and remedial maintenance and renewal is required. Furthermore, many adaptation measures could lead to cost-savings today – for example using water wisely.



"Businesses need to make room on their agendas now to address the long-term opportunities and threats presented by climate change. Leaving climate change preparations to chance could prove a costly decision".

Rachel Jackson, Association of Chartered Certified Accountants' Head of Social and Environmental Issues. From <http://www.acca.co.uk/news/releases/667056>

How should businesses be evaluating the risks?

You can minimise the problems posed by climate change through prudent planning and proactive adaptation to climate change. This guidance will help you to assess your businesses vulnerability and define suitable responses based on available resources, your approach to risk and the regulatory framework within which your business operates.

There are several questions which all businesses should be thinking about in order to evaluate vulnerability²:

responding to changing markets

Carbon constraints in automotive markets create both risks and opportunities for vehicle equipment manufacturers. Risks include possible loss of market share to manufacturers that produce less carbon-intensive vehicles. Opportunities lie in the potential to develop lower-carbon technologies ahead of rivals.

Summarised from Changing Drivers: The Impact of Climate Change on Competitiveness and Value Creation in the Automotive Industry produced by SAM (Sustainable Asset Management) Research and World Resources Institute

ask yourself

- How might customer demand change, and what impacts will this have on the products/services provided by the business?
- Will the business need to diversify? Are there opportunities which can be capitalised on?
- How might competitors be relatively disadvantaged/advantaged, and what are the implications for the business?
- Could climate change increase risks to the business?
- To what extent does the business rely on various transportation networks, and can the risks be reduced through the use of alternative suppliers, transportation networks, etc?
- How might raw materials be affected, and is there the need or scope to change the types of materials used?
- How will climate change affect business location in the future e.g. flood risk?
- How will climate change affect insurance policies?
- How might environmental legislation affect the business?
- Do current business strategies and plans include provision for the impacts of climate change?

² Checklist based on climate change precautionary principles set out by the Association of Chartered Certified Accountants (ACCA) (see <http://www.acca.co.uk>) and the framework produced by the Advisory Committee on Business and the Environment (ACBE) for evaluating risk (see www.defra.gov.uk/environment/acbe/pubs/).

The UK Climate Impact Programme (UKCIP) is also producing guidance which will help businesses to assess their vulnerability to climate change and to develop appropriate adaptation strategies.

Who should businesses be working with?

partnership working is essential for adaptation

Adapting to climate change will present a major challenge to the private sector as well as public sector bodies and the wider public. Businesses must establish links with relevant trade associations, research institutes and governmental bodies, to tackle climate change in the most effective way possible. The guidance sets out suggested key partners for implementing adaptation responses. For example, the Advisory Committee on Business and the Environment (ACBE) is a key organisation providing climate change advice to businesses.

'act now': adapting energy infrastructure

Northern Ireland Electricity are currently strengthening their infrastructure, in response to the 1998 floods and storms.

Potential UK Adaptation Strategies for Climate Change: Technical report, 2000, ERM

To download the full technical documents of the study findings visit <http://www.sustainability-east.com/>



When should businesses take action?

action planning should use a range of time frames

Climate change is a gradual process that happens over decades. So why act now? Why not just wait until predictions are more precise and changes are clearly beginning to bite? Work to adapt to climate change needs to start now, but it will be a long-term process that needs to be tackled in a staged, prioritised way. Some of the most immediate adaptation priorities are in relation to planning and developing major infrastructure, such as new buildings. Acting now can also provide 'no regret' solutions that can deliver benefits under present day climate as well as future climate scenarios. The guidance uses three time frames for action, to help you develop a programme for action.

With thanks to English Nature for their generous contribution of selected images used in this publication.