

Business threats and opportunities from the climate challenge

“To predict the impacts of climate change and to promote sustainable solutions through mitigation and adaptation”

Issues:

The UK Climate Impact Programme¹ projects changes in this century to long-term seasonal averages:

- warmer, drier summers
- milder, wetter winters
- rising sea levels

And to weather extremes:

- more very hot days
- more intense downpours of rain
- fewer days with frost

Global projections have been made by the IPCC² which also predict significant shifts in global climate over the century. UK business is exposed to both national and global climate changes. The impact of climate change is not going to be uniform; some regions will face larger changes and different impacts than others.

The UK Government has responded to the threat by mandating an 80% reduction in GHG emissions from a 1990 baseline by 2050, and by setting intermediate ‘carbon budgets’. This is intended to mitigate the degree of climate change we experience. Work is also underway to develop adaptation strategies to allow society to continue to function effectively as climate change occurs.

Business Threats:

Climate change will produce a wide range of threats to current business models³

- Some industrial processes are run close to thermal limits. Increased temperatures may make them impossible or too expensive to operate.
- Industries reliant on agricultural products will be affected by changes in raw material availability and continuity of supply.
- Heat island effects in cities will reduce workforce effectiveness.
- Existing patterns of consumer purchasing will change in response to shifts in climate.
- Extended, global supply chains will be vulnerable to interruption from general climate change and extreme weather events.
- Many existing industrial and transport complexes are on the coast or on waterways. They will be increasingly vulnerable to flooding.

¹ “A Changing Climate for Business”, 3rd Edition, June 2010, UKCIP

² “Climate Change 2007: Synthesis Report”, 2007, IPCC

³ “Future proof: Preparing your business for a changing climate”, 2007, CBI

- Geological subsidence and landslides may become a greater risk to building and infrastructure in some areas of the UK.
- Energy intensive industries will face regulatory pressure to reduce consumption, and will probably face increased costs.
- Utilities infrastructure (energy, transport and water) will be under increased stress.
- Business continuity will be threatened by extreme weather events.
- Costs to finance and insure businesses will change to reflect new risks due to climate change.
- In some parts of the UK and some parts of the world there will be severe competition for access to fresh water.

Business Opportunities:

- Energy efficient products with low embodied carbon.
- Low water use and low embodied water products.
- Products and services to allow existing systems to adapt to climate change; e.g. the adaptation of the existing building stock to higher temperatures, greater rainfall and more extreme weather events without increasing energy consumption.
- Data and visualisation products to transform climate and weather data to a form useful for business decision-makers.
- Specialist climate change consultancy to inform businesses about how climate change will affect them and guide their decision-making.
- Development of new product lines to reflect changing consumer choices.
- New crops and livestock that can thrive under changed climate conditions.
- New insurance and financial products to 'hedge' climate change risk.
- increased supply chain flexibility to cope with more rapidly changing patterns of consumption.
- Monitoring of carbon emission and carbon auditing of organisations.

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