



'Business vulnerability to climate change in the South West: understanding the baseline' project - key findings

This project was undertaken by Tim Morris, a student in MSc Sustainable Development at the University of Exeter. It was directed by Climate SouthWest to evaluate business vulnerability to weather-related risks across key business sectors in the South West of England. Interviews were conducted with a number of representatives from four key sectors that had been identified by Climate SouthWest on a combination of factors. The key sectors chosen were; advanced engineering; transport and distribution; food and drink manufacturing; and construction.

The report examined the impacts on businesses in the South West that arise from three weather-related risks; flooding/heavy rain; water shortage; and high temperatures. Both direct and indirect impacts were assessed to create a high level cross-sectoral regional picture of vulnerability and resilience to climate change and weather-related impacts.

Whilst this research project was limited in its scope due to restrictions on time, number of businesses interviewed, and subjectivity inherent in interviewee responses, the key findings are generally reflective of those identified in other business surveys and research projects – as detailed in the full report's literature review. The key findings are as follows:

Vulnerability

- Geographical location is a key factor in business vulnerability and is a key regional vulnerability due to the positioning of many businesses in the South West on low-lying or coastal land.
- Flooding is perceived as the highest priority weather impact (out of flooding, water shortages and high temperatures), as it can be very localised and have huge implications.
- Water shortages, high temperatures and prolonged disruption to power supplies/road networks are particular concerns for the Food and Drink Manufacturing sector, where many products have a short life-cycle.
- Indirect impacts of extreme weather can have a large impact on businesses. Road disruption, power and telecommunication loss are the most disruptive.
- Levels of vulnerability to utility/service disruption from extreme weather notably depends on preparation and business planning.
- Businesses with more complex, international supply chains, or businesses which depend on specialist suppliers that are difficult to replace (such as is common in the Advanced Engineering sector), are most vulnerable to supply chain disruption from extreme weather.
- Small and Medium Enterprises (SMEs) are disproportionately vulnerable due to their short time-planning horizons, lack of time and resources, and lack of influence over their supply chains.

Awareness and communications

- Most incidents are viewed as low probability and therefore adaptation is considered a low priority. This is also linked to the uncertainty involved in climate change, as businesses do not consider the costs of adapting worthwhile.
- There is a significant lack of awareness prevalent amongst South West businesses relating to;
 - the current changing climate of the South West;
 - their vulnerability to direct impacts and the extent of damage that these impacts could have on stock and infrastructure;



- their vulnerability to indirect impacts and the effect that disruptions to utilities or supply chains may have on their operations;
 - the nature of these vulnerabilities;
 - the adaptation measures available to increase resilience to disruptions.
- The extent of activity on climate change adaptation by business support organisations appears relatively low. Assistance to businesses is largely limited to planning for sustainability or responses to problems that have already occurred.
 - Due to the high degree of climate change scepticism, it is recommended that communications focus on vulnerability to current weather, rather than climate change.
 - The use of positive messages may help to foster a more positive response, greater uptake of information and more active development in adaptive measures from businesses.
 - Messages should be incorporated into business continuity management and planning advice. The inclusion of risk management skills in business support start-up packages would also be beneficial.

The full report can be read at: <http://www.oursouthwest.com/climate/tools.htm#bu>

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