



# PREPARING FOR CLIMATE CHANGE

A practical guide for small businesses



Be Life Confident

# Introducing AXA

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As one of the world leaders in financial protection and wealth management, we offer a wide range of insurance and financial products to meet your business and personal needs. Our commitment is to deliver our products with consistent care, advice and support as and when you need it.

We employ 117,000 people worldwide, and are also one of the thirty largest companies of any kind (Fortune magazine's Global 500 for 2003).

AXA provides products that help people to get the best out of life. Our products and services include: Business Insurance, Home and Motor Insurance, Investments, Life Assurance, Retirement Planning, Long Term Care, Asset Management, Medical Insurance and Dental Payment Plans.

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The information contained within this document is intended as a general guide only and is not necessarily comprehensive. You should seek appropriate professional advice when devising any risk assessment or management programme. AXA Insurance will not be liable for loss or damages arising, in contract, tort or otherwise, directly or indirectly from the use of or reliance upon any information contained in this document.

## Foreword

*The severe floods in Elgin, Carlisle, Lewes, Boscastle and all over Europe in recent years are in line with the predictions of climate change scientists. These predictions indicate that worse is to come, along with more heatwaves, droughts, storms and sea level rise. If small businesses are to survive it is clear that many will need to adapt to these more fluctuating and extreme weather conditions.*

AXA is a major insurer of small businesses in the UK. It has the expertise to offer you specialised risk management advice if needed.

This booklet is intended to offer some general advice on how to manage the risks climate change presents. I hope you will find it useful.



Chief Executive Officer,  
AXA Insurance

## Why it is important that you review your risks

*Our surveys show that 85% of small businesses are now aware that climate change poses a serious problem for the world, but only 26% see it as a direct threat to their business. Perhaps you may feel that climate change is just another scare story like the hole in the ozone layer, or acid rain.*

It is not. It is real and it threatens your survival as a small business. Just consider some of the issues:

### Floods

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- By 2080, the number of people at risk of flooding in Britain will increase from 1.6 million to between 2.3 and 3.6 million. The risk of river or coastal flood could increase between two and 20 times<sup>1</sup>.

### Storms

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The flooding in Carlisle in January 2005 was caused by a storm which was described as a “weather bomb” by the Met Office. A wind speed of 128mph was recorded causing damage to houses as well as widespread power cuts.

In the past, such severe storms were usually confined to Scotland where buildings and infrastructure tend to be more resilient. The UK Climate Impacts Programme Scenarios published in 2002 (UKCIP 2002) gave a snapshot of future climate<sup>2</sup> for the 2020s, 2050s and 2080s. UKCIP02 discusses changes in the north south pressure gradient which may result in stronger winds in southern and central Britain.

- It suggests a possible shift southwards of storm tracks which may result in stronger winter winds moving from Scotland to England where buildings are more vulnerable and more easily damaged.

<sup>1</sup> For details see <http://www.foresight.gov.uk/fcd.html>

<sup>2</sup> Hassell, J M; Boorman, D; Mcdonald, R And Hill, S.,2002. “Climate Change Scenarios for the United Kingdom: The UKCIP02 Scientific Report.” Tyndall Centre for Climate Change Research, School of Environmental Sciences, University of East Anglia, Norwich, UK, 120 pp.

Good examples of this happened with the storms of 1987, 1990, and 1999, as well as 2005.

Privatisation of electricity companies has resulted in recent cut backs in the staffing of repair teams which are no longer able to quickly repair widespread damage to overhead power lines from storms or snow.

- During the snow storm which took place in January 2003, tens of thousands of people in Southern England were without electricity for more than 24 hours, as there were not enough repair crew.

People are very dependent on electricity for business and for heating and cooking, and the possibility of prolonged power shortages should be taken into account in your continuity planning.

### **Extremes of Temperatures**

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Both ranges of extreme temperature (Hot and Cold) can affect employees with pre existing medical conditions such as high blood pressure, heart disease, epilepsy and diabetes, extremes of heat and cold can exacerbate these conditions and could lead to serious injury or fatality, particularly if operating plant or machinery.

It is important to use pre-employment medical questionnaires to identify those with conditions and build into risk assessments to allow development of suitable management controls.

Employees working in offices especially where there is likely to be a larger female population, in particular nursing or expectant mothers and young persons who can be affected by very hot temperature leading to fainting fits. Employer may need to supplement their duty of care by ensuring an adequate supply of drinking water and or other means of hydration. There are similar problems with extremes of cold, employees who have a sedentary job function are at risk of attracting hypothermia.

### Freeze

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Although climate change will produce more extreme heatwaves, there will still be freezing conditions.

- The winter of 1995/6 cost insurers £350m in burst pipe claims due to the design of plumbing systems in the UK.

These systems are most vulnerable if there are continuous freezing temperatures for three days and three nights. Research in the USA has shown that a permanent modification to pipework can significantly reduce burst pipes damage. Simply introduce a sealed T piece pipe into the system with an air bubble in it to absorb the expansion of the ice.

Effects of cold on employees can be every bit as bad and bring their own particular issues with extreme cold including:

Increased incidence of slips, trips and falls, need to ensure adequate gritting of access and egress routes and maintenance of same during cold weather. In addition, standard of employee footwear in use and whether supplied personal protection equipment and clothing is adequate for conditions i.e. cold weather gear.

Employees working outside in fairly active occupations where physical exertion is required are more likely to become chilled quicker in cold weather, rest periods may have to be introduced in extreme low temperatures to offset hypothermia effects.

### **Heatwave**

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The heatwave of 2003 resulted in 900 premature deaths in the UK and up to 35,000 in the rest of Europe.

- Climate change projections are that heatwaves like 2003 will become the norm in a very few years.

Most UK buildings are not designed for high temperature conditions.

Air conditioning can help but is vulnerable to power cuts as was seen in London in July 2006. External shutters on windows can help to reduce solar glare.

Kitchen staff can be very vulnerable to high temperatures which can cause staff to faint, increasing likelihood of injury as well as reducing efficiency.

Good ventilation is important and staff should be encouraged to take more breaks in the fresh air when temperatures are high. Other simple measures catering establishments can implement include:

- insulating high temperature pipes or plant;
- providing air-cooling plant;
- shading windows;
- siting workstations away from places subject to radiant heat.

Employers should also follow HSE guidance the use of sun blocks, advice and instruction to employees regarding the effects of working outdoors in extreme hot temperatures, advice could range from hydration (drinking enough water), how to dress, when to apply sun blocks, also specify perhaps minimum and maximum working periods.

### **Disease and insect infestation**

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Mosquito borne diseases and other tropical diseases could appear in Britain.

Pandemics such as avian flu could have a devastating effect. Toxic mould spores following flooding in warm temperatures could make buildings uninhabitable.

Northern Britain is already experiencing an increase in the incidents of Lyme disease, which is potentially fatal, and is attributable to seasonal increased ambient temperatures.

## **Drought**

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Summers will be drier, although there will still be a flood risk from summer thunderstorms where the run off will be faster on dry ground. Hosepipe bans will be bad news for car washes, window cleaners and other businesses dependent on water. Water butts can be used to store rainwater from roofs but should be covered to prevent the formation of algae.

## **Subsidence and heave**

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Subsidence is often the consequence of drought conditions. The problem is worst in England due to the nature of the soil, and the inadequacies of the relevant planning guidelines and building standards.

## About this booklet

1. Often you can reduce your risks at very little cost, with just a little planning and foresight. This booklet tells you how.
2. Do not take insurance cover for granted, it is a cost effective way to reduce risk, provided you regularly review your cover and precautions to make sure they areit is adequate.
3. Remember all the mainstream climate scientists in the world are agreed that climate change is happening and that it will produce more extreme weather. Is your business prepared?
4. AXA understands your problems and wants to help.

## An ABC of what businesses can do to reduce risk

### A is for Adaptation

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Act now to make your premises and contents more resilient

#### Resilience

If your premises are damaged in a fire, the local authority may require them to be reinstated to higher standards of safety and your fire insurance will cover this. In the case of a flood or storm, there is no legal requirement to reinstate to higher standards of resilience, but it often makes sense to do so. Discuss this with your loss adjuster. Some “resilient reinstatement” measures, such as location of new electrical sockets above flood level, need not cost any more, others may require you to contribute to the costs of the claim, but will reduce inconvenience and costs next time. For more advice on this see <http://www.ciria.org/flooding/>

In the meantime, take steps to reduce losses of stock.

- Avoid storing stock on the floor. Store them not less than 300mm off the floor or 300mm above the previous highest point of any flood water.
- Avoid storage in basements if possible.
- Think about high value stock, plant and vehicles – can they be relocated rapidly? Do you and your staff know where they would relocate to?
- Remove computers or other electronic equipment from the floor.
- Where you store chemicals is there a possibility of contamination or environmental damage should they be affected by flood water?
- Items such as food, baby clothes, medicines and electronic equipment may become unfit for sale even if flood waters do not reach them and will have to be destroyed.
- It may take a long time to clean and dry out your premises sufficiently to restock and recent AXA research shows that businesses significantly under-estimate how long it takes to recover from a flood.

Where you have premises in a flood hazard area you should not rely on sandbags, these are never entirely effective, even if they can be deployed in time. Consider investing in the new generation of demountable flood defence products such as those tested and approved by British Standards institution (BSI). They are much more effective, easier to use, can be deployed quickly and can be cleaned and re-used. Remember to cover air bricks. Consider fitting one way valves on your drains and sewers, often flood water comes in through toilets and baths. For more details, see the further reading section at the end of this booklet.

**B is for Business continuity plans,**

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**What is business continuity planning?**

Put simply, business continuity is about anticipating the crises that could affect a firm and planning for them, to make sure that the business can continue to function in the event of an emergency.

**What is a business continuity plan?**

A Business Continuity Plan sets out clear roles and responsibilities, for example those assigned to manage all liaison with customers, employees and the emergency services. It lists a series of contingencies that enable key business activities to continue in the most difficult circumstances, such as when a vital computer system or other equipment is unavailable.

Importantly, it also details clear emergency procedures to ensure that the safety of employees is a top priority.

Because it requires an assessment of all critical areas of a firm, business continuity planning is a valuable management tool, but our survey shows that 69% of small businesses have no business continuity plan.

AXA are experts in demystifying the subject of business continuity planning for SMEs. The guidance is wide ranging and we recommend you read and act on our separate publication 'Business Continuity Guide for Small Business', available free of charge from AXA.

Following the Civil Contingencies Act 2004, your local authority is now legally obliged to help you to develop your business continuity plan. Talk to your local Emergency Planning Officer.

In England and Wales, you can check if you are in a flood risk area by logging onto the Environment Agency website (<http://www.environment-agency.gov.uk/maps/info/floodmaps/>) If there is a flood hazard, check with the Environment Agency (Scottish Environment Protection Agency in Scotland) to make sure that you can receive flood warnings.

### **Are you adequately insured?**

Part of your business continuity plan should consider whether you are adequately covered for insurance, especially for Business Interruption (see below). Are your sums insured adequate on your buildings and contents? A recent survey by Axa showed that 90% of small businesses are “underinsured” for their buildings insurance, in other words their sum insured has not kept pace with the increases in rebuilding costs. In some cases the level of underinsurance can range from £100,000 to over £1m. If you are underinsured and you suffer loss or damage it is worth bearing in mind that even if there is not a total loss, your insurer has the right to reduce the claims payment in proportion to the underinsurance. AXA offer a fixed price building valuation service which includes the removal of the under insurance condition for buildings.

### **Business Interruption**

Around a third of small business customers do not have Business Interruption (BI) cover. Damage to your premises or contents can affect the ability of your business to survive. Not only because of lost sales, but also increased costs such as alternative premises, overtime etc. There are many variations on BI but the basic idea is to make up for two things:

1. the shortfall in net profit due to lost sales. The performance of the business during the period of interruption is compared with the same period last year and adjusted to allow for the growth trend of the business to calculate what is needed to make good the difference. This is called the “difference basis”.
2. the extra costs incurred in minimising the reduction in income, on the basis of up to £1 for any expenditure that saves £1 of lost income. (“Increased cost of working”)

In addition the policy will cover accountants’ fees to provide the details required by the insurer in the event of a claim.

Cover can be on the basis of gross profit, gross rentals or gross revenue. In the case of Business Interruption it is important to ensure that the "indemnity period" is adequate. This period should cover the length of time it takes to get the business back to normal. In the case of a major flood there can be prolonged trading difficulties because of the time it takes to dry out properties and the loss of customers who have also been flooded. A period of less than 12 months will rarely be enough: the length of business interruption has increased enormously in the last ten years as businesses become more complex, and more are damaged by flooding. The average interruption has increased from 8 months in 1996 to 14 months in 2005.

The average cost of a business interruption claim has increased from £22,000 in 2001 to £35,000 in 2005. Could your business survive a loss like that?

You should also make sure that you include cover for wages and salaries during the interruption so that you can retain key employees. Many of your employees' homes may also be affected by a major event and this will not be a good time to tell them that you can no longer pay them.

Finally, make sure that you keep your accounts records in a safe place away from flood or fire risks.

**C is for Co-operate with other businesses**

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Exchange ideas, organise mutual flood warning systems, sharing alternative accommodation, alternative suppliers. Utilise contacts you already have through trade associations, local interest groups, Chamber of Commerce or similar business groups. If you are aware of other businesses that have suffered flood damage, understand what problems they encountered and how their experiences could help your planning process.

## General risk management advice

Risk management can be broken down into various components.

- First carry out a risk assessment including flood, drought, storm and temperature extreme as part of a general approach. Also the risks to employees who may not be able to get into work, employee training, electrical wiring, health and safety policy etc. Much of this is common sense, but for bigger businesses it can be useful to ask for a survey to be carried out by an expert.
- For each risk, consider the three aspects of hazard, vulnerability and exposure.
  - Hazard; what are the chances of the event happening and how serious could the event be?
  - Vulnerability; how badly could your business or staff be affected by the event? Perhaps you may need to supply personal protective equipment or change your operating procedures.
  - Exposure; how exposed are your premises to, say flood hazards?
- Read your insurance policy. Make sure you understand it and if there is anything you do not understand or are not happy about, ask.

Flooding can be one of the most devastating disasters for a small business. This means it is well worth being prepared. Here are some essentials to start the planning process:

- Think about alternative premises.
- Think how you could contact your employees at short notice out of hours if you require assistance to move equipment or stock away from flood water.
- What about temporary protection to keep water out or protect materials or stock that is undamaged.
- How to contact your insurer in the event of damage.
- What information will my insurer or their loss adjuster require – is it in a safe location?
- What could I do now to make my business more resilient – is there anything I would replace differently if I did suffer a serious flood?
- Can I relocate any computer or electronic equipment now to protect it against water damage?
- How would I go about cleaning up following flood damage? Are there any items I need to purchase now?
- Start thinking about Business Continuity and complete a Business Continuity Plan.
- Think about what health and safety actions you require to undertake.

For more advice see the Further Reading section of this booklet.

### **Useful web sites for more information**

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[www.rics.org](http://www.rics.org) gives advice on property valuations

<http://www.ciria.org/flooding/> for advice on flood resilience

[www.floodforum.org.uk](http://www.floodforum.org.uk) contains a great deal of useful information about flooding in England and Wales

## Further reading

### **“Business Continuity Guide for Small Businesses”**

Available free from AXA Insurance, <http://www.axa4business.co.uk/bc/guide.asp>

### **Risk Management Advice for SME’s**

AXA produce bespoke guides for SME’s on numerous risk management topics. All are available free from AXA Insurance, <http://www.axa4business.co.uk/resources>

### **Flood and resilient reinstatement**

Garvin, S., Reid, J., Scott, M., Building Research Establishment, East Kilbride, Scotland. 2005 “Standards for the repair of buildings following flooding” Manual C623. 133pp. Construction Industry Research and Information Association (CIRIA), London.

### **Demountable flood defences**

Crichton, D. 2004. “Temporary local flood protection in the United Kingdom. – An independent assessment.” A Benfield Hazard Research Centre technical report. Free download from: [http://www.benfieldhrc.org/SiteRoot/activities/misc\\_papers/Temporary\\_local\\_flood\\_protection.pdf](http://www.benfieldhrc.org/SiteRoot/activities/misc_papers/Temporary_local_flood_protection.pdf)

### **Historic Building restoration**

Fidler, J., Wood, C. Ridout, B., 2004. “Flooding and Historic Buildings: Technical Advice Note.” 23pp English Heritage, London. Printed copies are available free from English Heritage, 23 Saville Row, London W1S 2ET (Product code 50776). Or can be downloaded from: <http://www.english-heritage.org.uk/filestore/conserving/advice/flooding%20tan.pdf>

### **General advice about all aspects of flood risk**

Crichton, D., (2005) “Flood risk and insurance in England and Wales: are there lessons to be learnt from Scotland?” Technical Paper Number 1, Benfield Hazard Research Centre, University College London. Available for free downloading from [www.benfieldhrc.org](http://www.benfieldhrc.org)

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