PREPARE - Barriers and enablers to organisational and sectoral adaptive capacity - quantitative study

Part of the PREPARE Programme of research on preparedness, adaptation and risk
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1Ipsos MORI

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Executive summary

This report presents the findings from a quantitative telephone survey conducted by Ipsos MORI on behalf of Defra. Its aim is to inform Government’s National Adaptation Plan and to understand the changing information needs of businesses. The telephone survey builds on a baseline survey carried out in 2009/10, which provided information from businesses on their organisational awareness, understanding and motivations in relation to climate change adaptation. This new survey, conducted in 2012/2013, is, for the most part, a repeat of the baseline survey carried out in 2009/2010.

The survey interviewed selected types of organisations for which adaptation is likely to be more relevant. In total, it covered 1,700 businesses, 75 local authorities, 50 health authorities, 50 third sector organisations, and 101 educational establishments.

Preparing for climate change

- Two in five (38%) organisations interviewed are taking action on climate change risks, an increase of twelve percentage points from 2009/10. Around a quarter have not yet thought about how to adapt to climate change – the same proportion as in 2009/10. However, there has been a significant increase in the number of organisations saying they are taking extensive adaptation measures, with the figure doubling from one in 14 (7%) to one in seven (15%)\(^1\).

- More local authorities and health authorities are taking adaptation action than in 2009/2010. Around three in five of these groups are now taking some form of action (65% of local authorities compared to 48% in 2009/10, and 62% of health authorities compared to 16% in 2009/10). Education and third sector organisations are least likely to have begun taking action (31% and 22% respectively)\(^2\).

- A greater number of businesses are also taking action than was the case in 2009/10. One in three now say they have begun taking action to prepare for climate change, compared to one in four (24%) in 2009/10.

- Most progress among the private sector has been among medium-sized businesses. One in three (32%) of those with 10–99 employees are now taking action, compared to one in seven (14%) in 2009/10, while the same proportion of businesses with between 100 and 249 employees (33%) now do so compared to 23% in 2009/10.

- Increases in action on climate impacts are taking place despite planning horizons being shorter than in 2009/10. Average planning horizons have become more short-term when compared to 2009/10, which may reflect the continued uncertainty surrounding the wider economic environment.

- Reflecting their shorter-term focus, organisations tend to plan for extreme weather events rather than longer-term trends. These events include flooding caused by rain (76%) and snow/ice (74%). Less recent events (such as heat waves) are less prominent (included in risk assessments by 56%). In part, this may be related to the fact that flooding and very wet winters are the two events most likely to have significantly affected organisations over the last three years (24% and 12% respectively).

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\(^1\) Throughout this report we refer to a scale of ‘adaptation action’ which ranks organisations surveyed in terms of the steps they are taking towards adapting to the impacts of climate change. Please see the appendices for more information.

\(^2\) Note: it is not necessarily realistic to expect all organisations to be able, or indeed for it to be necessary, for them to take adaptation measures due to their size or other factors, such as their planning horizons.
Knowledge and concern about climate change

- Personal knowledge about climate change has fallen a little among risk managers. Four out of five (83%) of the risk managers questioned say they know a great deal or a fair amount about the impacts of climate change, down slightly from nine out of ten (91%) in 2009/10. The degree to which risk managers are concerned about how climate change might impact the UK has also fallen since 2009/10 – from 79% to 68%.

- Local authorities have a higher level of awareness of climate change than other sectors, although the number of real experts has dropped. Around 95% of risk managers we spoke to in local authorities know a great deal or a fair amount about climate change; however, compared to 3 years ago, their level of knowledge has dropped significantly. In 2009/10, two in three (65%) said they knew 'a great deal' about climate change, whereas just over one in four (28%) do so now.

- Concern about climate change has fallen but concern about the kinds of extreme weather that climate change could bring remains high. This indicates that the link between extreme weather and climate change is not always made. However, concern about climate change is only slightly below that of more direct business pressures such as the economic downturn or competition from other organisations.

- The number of organisations saying they have enough information remains high. As was the case in 2009/10, 75% are confident they have the information they need about planning for climate change. However, further research conducted in parallel to this survey shows that, on closer inspection, many organisations overestimate their own expertise and many still confuse climate mitigation with adaptation.

Barriers and enablers to adaptation

- Many organisations - particularly smaller organisations - do not see climate change as relevant to them. When organisations that do not take action were asked what prevented them from doing so, the most common response was that ‘nothing does’ (31%). A further one in nine (11%) say that climate change is not relevant to them. However, among this group the second most commonly cited barrier is lack of budget, with three in ten (29%) saying this.

- Businesses are more likely to look to Government for leadership than to the market. Fewer than half (42%) say seeing competitors preparing for climate change would encourage them to act; however, 58% are more likely to be encouraged to act if they see the Government doing so.

Threats and opportunities of climate change

- Organisations predominantly view weather-related consequences of climate change as threats rather than opportunities. This is especially true of heavy downpours causing localised flooding (75% see this as a threat, whereas 3% believe it an opportunity) and very wet, rainy winters (52% see this as a threat, and 8% an opportunity). However, a significant proportion - just under half (46%) - recognise climate change impacts could be an opportunity for new products or services.
### Table of contents

1 **Background** .................................................................................................................. 1  
1.1 This survey .................................................................................................................. 1  
1.2 Sample profile ............................................................................................................. 2  
1.3 Steps taken to ensure consistent samples ................................................................. 3  
1.4 Survey approach ......................................................................................................... 3  
1.5 Interpreting the results ............................................................................................... 3  
1.6 Publication of results ................................................................................................. 4  
1.7 Acknowledgments ....................................................................................................... 4  

2 **Climate change: Awareness, concern and impacts** ....................................................... 5  
2.1 Personal knowledge of climate change ....................................................................... 5  
2.2 Concern about climate change ................................................................................... 6  
2.3 Direct effect of climate change ................................................................................... 8  

3 **Climate change – opportunity or threat?** ..................................................................... 12  
3.1 Perception of climate change impacts as threats or opportunities .......................... 12  

4 **Planning for climate change** ......................................................................................... 16  
4.1 Extent of actions taken and plans made regarding climate change ......................... 16  
4.2 Allocation of budget and staff to plan for and manage climate risks ..................... 19  
4.3 Future planning and business decisions .................................................................... 23  
4.4 Climate risk assessments ............................................................................................ 25  
4.5 Triggers to plan ........................................................................................................... 27  
4.6 Threats to suppliers/supply chains ............................................................................. 29  

5 **Information and support** .............................................................................................. 31  
5.1 Information relating to adaptation ............................................................................ 33  
5.2 Government support .................................................................................................. 37  

6 **Appendices** .................................................................................................................. 1  
6.1 Appendix 1 - Sample sources .................................................................................... 1  
6.2 Appendix 2 - Questionnaire ....................................................................................... 2  
6.3 Appendix 3 - Quotas and weighting .......................................................................... 13  
6.4 Appendix 4 - Statistical reliability ............................................................................ 15  
6.5 Appendix 5 - Adaptation action scale ....................................................................... 17  
6.6 Appendix 6 - Glossary of terms .................................................................................. 18
1 Background

The climate is changing and warming will continue throughout this century. The 2009 UK Climate Projections\(^3\) show increases expected in summer and winter temperature, increases in winter rainfall, decrease in summer rainfall (although small increases are also possible) more days of heavy rainfall, and rising sea levels. Adaptation is needed to manage current risks from extreme weather, and to prepare for additional pressures from the changing climate in future.

The **Climate Change Act 2008** made the UK the first country in the world to have a legally binding long-term framework to cut greenhouse gas emissions and to build the UK’s ability to adapt to climate change. With regard to adaptation, the Act requires:

- A UK-wide climate change risk assessment (CCRA) that must take place every five years;
- A national adaptation\(^4\) programme (NAP) which must be put in place and reviewed every five years, setting out the Government’s objectives, proposals and policies for responding to the risks identified in the CCRA;
- Adaptation Reporting Powers (not applicable in Northern Ireland) which enable the Secretary of State to direct “reporting authorities” to prepare climate change adaptation reports.
- In addition, the Adaptation Sub-Committee of the Committee on Climate Change, an independent expert body, was set up as required under the Climate Change Act 2008. Its role is to advise on the preparation of the UK CCRA, to report to Parliament on the UK Government’s progress in the implementation of the NAP and to provide advice to the Devolved Governments, as required.

In the first round of reporting under the **Adaptation Reporting Power** (completed in 2011) over 100 organisations, primarily from the energy, transport and water sectors provided reports to Defra. This provided a clearer picture of climate risks, adaptation actions and awareness at organisational level in a limited number of sectors.

The Government published the **UK Climate Change Risk Assessment** (CCRA) in 2012, the first assessment of its kind for the UK and the first in the five-year cycle. This assessed (and where possible, monetised) the main risks and opportunities in the UK from climate change.

The Government will publish a **National Adaptation Programme** (NAP) responding to risks identified in the CCRA to describe the respective roles of Government, private sector and others in meeting these challenges.

The Environment Agency provides support and information service in England though its **Climate Ready** programme\(^5\). This provides advice and information to help businesses and others adapt to a changing climate.

1.1 This survey

This report presents the findings from a quantitative telephone survey conducted by Ipsos MORI on behalf of Defra to inform its National Adaptation Plan, and to understand the changing information needs of businesses. In 2009/10 a baseline survey was conducted

\(^3\) [http://ukclimateprojections.defra.gov.uk/]
\(^4\) A glossary of terms is included in the appendices providing a definition of ‘adaptation’ and other terms.
\(^5\) Available at [http://www.environment-agency.gov.uk/research/137559.aspx](http://www.environment-agency.gov.uk/research/137559.aspx)
which provided a measure of organisational awareness, understanding and motivations in relation to climate change adaptation. This survey conducted in 2012/2013 is, for the most part, a repeat of the baseline survey carried out in 2009/2010. The overall aim of this second wave of research is to make comparisons with the findings of the baseline survey in order to understand if and how awareness of, views towards and action on climate change and adaptation have changed.

1.2 Sample profile

The survey involved telephone interviews with representatives from private sector organisations, local Government, the health sector, the third sector and educational institutions. Further details on these groupings are provided in table 1, which summarises the sample sizes for each audience in both the 2009/2010 and 2012/13 waves of this survey.

A purposive approach to sampling was used, with an emphasis on larger private companies for whom climate change adaptation is more likely to be relevant. Due to this we would advise caution before treating these results as representative of the surveyed sectors as a whole.

The same approach was used for the most recent wave of this research, and quotas were set for each audience to ensure a replicable sample profile. Information on the quota variables for each audience is included in the brackets in table 1.

Table 1.

<table>
<thead>
<tr>
<th>Sector</th>
<th>No. of interviews achieved - 2009/10 (%)</th>
<th>No. of interviews achieved - 2012/13 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private sector (across a range of Standard Industry codes, and by employee size)</td>
<td>439 (72%)</td>
<td>1700 (86%)</td>
</tr>
<tr>
<td>- 1-9 employees</td>
<td>56 (9%)</td>
<td>239 (12%)</td>
</tr>
<tr>
<td>- 10-99 employees</td>
<td>86 (14%)</td>
<td>378 (19%)</td>
</tr>
<tr>
<td>- 100-249 employees</td>
<td>96 (16%)</td>
<td>425 (22%)</td>
</tr>
<tr>
<td>- 250+ employees</td>
<td>201 (33%)</td>
<td>658 (33%)</td>
</tr>
<tr>
<td>Local Government (around 19 each from unitary, district, county and London councils)</td>
<td>75 (12%)</td>
<td>75 (4%)</td>
</tr>
<tr>
<td>Health sector (PCTs, regionally spread across England)</td>
<td>25 (4%)</td>
<td>50 (3%)</td>
</tr>
<tr>
<td>Third sector</td>
<td>25 (4%)</td>
<td>50 (3%)</td>
</tr>
<tr>
<td>Educational institutions (equally split between primary, secondary, higher and further education)</td>
<td>48 (8%)</td>
<td>101 (5%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>612 (100%)</td>
<td>1976 (100%)</td>
</tr>
</tbody>
</table>

6 Full details on the quotas can be found in the appendices.
1.3 Steps taken to ensure consistent samples

The 2009/10 survey was conducted among businesses, third sector organisations, health bodies, educational establishments and Local Authorities in England only. The 2012/13 wave also included these five audiences, but in addition to this surveyed businesses in Wales, Scotland and Northern Ireland to provide a UK measure for businesses. To enable comparison between findings from the 2009/10 and 2012/13 surveys, however, this report examines the results of organisations in England only. A set of separate PowerPoint reports presents the responses of businesses in the devolved UK administrations, as well as in each of the nine regions of England.

To allow for analysis of the business results on a national and regional basis, the total sample of businesses surveyed is much larger than was the case in the baseline survey. To ensure that consistent samples are compared year on year, the 2012/13 data has been weighted to reflect the profile of the 2009/10 sample. Details of this can be found in the appendices.

The data has not been weighted to adjust the sample to reflect the actual profile of organisations (e.g. company size, local authority types) across England as a whole. This would have been impractical given the purposive sampling approach, potentially introducing ‘design effects’ and reducing reliability.

Our approach was to sample in a consistent way to strengthen the statistical comparisons between the survey waves. The business sample for example in both 2009/10 and 2012/13 included a mix of businesses as defined by their standard industrial classification (SIC) code, which is used to categorise different types of business. One of the codes included in 2009/10 was no longer available. Consequently the data from 2009/10 was rerun (with the organisations within this code excluded) to ensure robust comparisons between the two surveys.

1.4 Survey approach

We interviewed one person per organisation and focused on a range of functions / titles to best cover issues of organisational planning; for example, Planning or Risk Manager, Environmental Manager, and other planning and strategy-related job titles. In the education sector, head teachers or other senior posts (or FE / HE equivalents) were targeted.

The survey was introduced as being: ‘...on behalf of Defra, the Department for the Environment, Food and Rural Affairs, about the environmental risks and opportunities facing different types of organisations’. No financial incentives to taking part were offered.

Interviews were conducted between 10 December 2012 and 18 January 2013. This included a period of widespread heavy flooding across the UK. Furthermore, the baseline survey was conducted between 8 December 2009 and 15 January 2010. This was a period of heavy snowfall and very low temperatures throughout all of the UK. It is likely that these weather events were particular day-to-day issues for some respondents during some of the fieldwork periods of each survey.

1.5 Interpreting the results

Throughout this report to the results are examined in three stages:

1. First, it considers the findings for the total sample and compares this with the equivalent result in 2009/10.

7 SIC code T, which includes ‘activities of households as employers, undifferentiated goods and services producing activities of households for own use’.

Ref: Ricardo-AEA/R/ED58163/PREPARE R1b/Version 1.1 3
2. Secondly, it looks in more detail at particular sectors (for instance, businesses, local authorities and other types of organisation) and again makes comparisons where appropriate with the previous survey data.

3. Thirdly, it explores the differences in findings at the sub-group level, for instance, based on different attitudes, awareness and past experiences.

In line with the 2009/10 survey, we report differences between private businesses of different sizes (in terms of their number of employees) as well as between private businesses, local authorities and organisations in the education, health and third sectors. It is important to note that the small sample sizes of organisations in the health and third sectors (50 each) means that findings for these subgroups are not statistically robust and therefore indicative only.

In addition, this survey includes questions that were not asked in 2009/10. Therefore no comparison can be made for these questions. Nevertheless, the report includes a summary of the findings for the new questions introduced in the second wave of this research. The full questionnaire can be found in the appendices.

1.6 Publication of results

No publication or press release should be made of these findings without the advance approval of Ipsos MORI although such approval would only be denied on the grounds of inaccuracy or misrepresentation.

1.7 Acknowledgments

Ipsos MORI would like to thank the Defra team for advice and input throughout the project, and to all respondents who gave their time to take part in the survey.
2 Climate change: Awareness, concern and impacts

2.1 Personal knowledge of climate change

This section presents findings on personal understanding of climate change, concern about the impacts it might have for organisations and the extent to which organisations have been affected by it.

Overall findings

This research suggests that the majority of organisations surveyed have at least some understanding of climate change: four in five (83%) know a great deal or a fair amount about it. However, this represents a drop in awareness when compared with the baseline research in 2009/10 when nine in ten (91%) reported this level of understanding. While in 2009/10 one in four (26%) said they knew a great deal about climate change, now one in six (18%) do so, and the proportion that admit they do not know very much has risen from less than one in ten (9%) to one in six (16%).

Figure 1

Knowledge of climate change

Q4 How much if anything would you say you personally know about the term ‘Climate change’? Would you say you know...

<table>
<thead>
<tr>
<th>Year</th>
<th>A great deal (%)</th>
<th>A fair amount (%)</th>
<th>Not very much (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>18</td>
<td>65</td>
<td>16</td>
</tr>
<tr>
<td>2010</td>
<td>26</td>
<td>65</td>
<td>9</td>
</tr>
</tbody>
</table>

Base: All organisations in England (1976)

Results by audience

As was the case in 2009/10, Local Authorities generally have a higher level of awareness than other sectors. However, this difference is much less pronounced than was previously the case: in 2009/10 two in three (65%) Local Authority representatives said they knew a
great deal about climate change, whereas just over one in four (28%) do so now. Among businesses too, awareness has fallen with a greater proportion now saying they do not know very much about it (18% compared to 10% in 2009/10).

Figure 2

Knowledge of climate change – by sector

Q4 How much if anything would you say you personally know about the term ‘Climate change’? Would you say you know…

<table>
<thead>
<tr>
<th>Sector</th>
<th>A great deal (%)</th>
<th>A fair amount (%)</th>
<th>Not very much (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business (1700)</td>
<td>17</td>
<td>65</td>
<td>18</td>
</tr>
<tr>
<td>Third Sector (50)</td>
<td>14</td>
<td>68</td>
<td>18</td>
</tr>
<tr>
<td>Health (50)</td>
<td>14</td>
<td>74</td>
<td>12</td>
</tr>
<tr>
<td>Education (101)</td>
<td>20</td>
<td>65</td>
<td>15</td>
</tr>
<tr>
<td>Local Authorities (75)</td>
<td>28</td>
<td>67</td>
<td>5</td>
</tr>
</tbody>
</table>

As was found in the baseline survey, larger businesses and those with longer planning cycles tend to report a higher awareness of climate change. Three in ten (31%) organisations that plan at least 10 years into the future say they know a great deal about climate change, compared to 16% of organisations with shorter planning timescales.

2.2 Concern about climate change

Overall findings

Although many organisations surveyed do not have a detailed knowledge of climate change, the majority (68%) are concerned about the possible effects it might have for the UK. However, while the majority are concerned to some extent, organisations surveyed are generally less worried than they were in 2009/10: this represents a drop of 11 percentage points since 2009/10 when 79% expressed concern.

Organisations surveyed in this research tend to be more concerned about being prepared in case of extreme weather events (74%) than they are of the effects of climate change on the UK (68%). One in three organisations say they are very concerned about extreme weather compared to one in five (21%) being very concerned about the effects of climate change (down from 34% in 2009/10).
While extreme weather is seen as a pressing concern for many organisations, the link to climate change, and the idea that extreme weather events will become more common as a result of climate change, is not always made: one in six (17%) of all organisations are concerned about extreme weather but are not very or not at all concerned about the impacts of climate change on the UK.

While concern about climate change has fallen, concern regarding preparedness for extreme weather events remains consistent with 2009/10, as it has done for more direct business pressures such as the economic downturn or competition from other organisations. This, and the corresponding fall in awareness of climate change, suggests that it may have fallen down the agenda for many organisations.

Results by audience

As well as being the most informed about climate change, local authorities are also more worried than other types of organisation about its impacts. Nine in ten (90%) are very or fairly concerned, compared to two in three (65%) businesses. Representatives of third sector organisations are least concerned, with around half (52%) expressing concern.

The findings of this research suggest that concern about the impacts of climate change have declined for most audiences surveyed. Concern amongst businesses has fallen by eleven percentage points, while it has declined by nine percentage points for local authorities and sixteen percentage points for educational establishments. While the data would suggest a corresponding fall in concern among health trusts, the sample size is too small to be able to say whether this is statistically significant.
## Concern about climate change

### Q1: To what extent, if at all, is your business/organisation currently concerned about...The effects of climate change on the UK?

<table>
<thead>
<tr>
<th>Category</th>
<th>Not at all concerned (%)</th>
<th>Not very concerned (%)</th>
<th>Fairly concerned (%)</th>
<th>Very concerned (%)</th>
<th>Don't know (%)</th>
<th>Fairly/very concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (1976)</td>
<td>6</td>
<td>23</td>
<td>47</td>
<td>21</td>
<td>2</td>
<td>68%</td>
</tr>
<tr>
<td>Business (1700)</td>
<td>8</td>
<td>25</td>
<td>46</td>
<td>19</td>
<td>2</td>
<td>65%</td>
</tr>
<tr>
<td>Third sector (50)</td>
<td>8</td>
<td>36</td>
<td>32</td>
<td>20</td>
<td>4</td>
<td>52%</td>
</tr>
<tr>
<td>Health (50)</td>
<td>4</td>
<td>32</td>
<td>48</td>
<td>15</td>
<td>2</td>
<td>62%</td>
</tr>
<tr>
<td>Education (101)</td>
<td>7</td>
<td>17</td>
<td>52</td>
<td>22</td>
<td>2</td>
<td>74%</td>
</tr>
<tr>
<td>Local Authorities (75)</td>
<td>8</td>
<td>60</td>
<td>30</td>
<td>15</td>
<td>2</td>
<td>90%</td>
</tr>
</tbody>
</table>

Concern about the impacts of climate change on the UK is correlated with the following factors:

- **Awareness of climate change**: Concern about climate change rises with awareness of it as an issue, though this correlation is not necessarily evidence of causation. Half (50%) of individuals who admit that they know nothing or not very much about it are concerned, compared to 69% of those who know a fair amount and 80% who know a great deal;

- **Experience of extreme weather**: Organisations that have been significantly affected by weather events such as heat waves, flooding or dry summers tend to be more concerned about the effect of a changing climate (80% of those experiencing these events on the last three years are concerned vs. 62% of organisations that have not been affected); and

- **Planning horizons**: Conversely, organisations that do not make decisions beyond two years into the future are least concerned about climate change (59% vs. 71% that plan at least two years ahead).

### 2.3 Direct effect of climate change

#### Overall findings

Fewer organisations surveyed say their organisation has been significantly affected by the possible effects of climate change, such as flooding, than was the case in 2009/10. One in three respondents (33%) have experienced such an event, compared to two in five (38%) in 2009/10. Localised flooding as a result of heavy rainfall is the most common way in which respondents say their organisation has been affected (24%), followed by a wet, rainy winter
(12%). Very few have been impacted by a mild winter (4%), a dry summer (4%), a heat wave (3%) or coastal flooding (3%).

Figure 5

Affected by climate change

Q6: In the last three years, has your business / organisation actually been significantly affected by any of the types of events I have read out? (Multicode)

<table>
<thead>
<tr>
<th>Event</th>
<th>2012</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (any)</td>
<td>33%</td>
<td>38%</td>
</tr>
<tr>
<td>Yes - Heavy downpour causing localised flooding in area lasting a few days</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Yes - A very wet, rainy winter</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Yes - A particularly dry summer</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Yes - A very mild winter</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Yes - An intense heat wave lasting a week</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Yes - A particularly warm summer</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Yes - Severe coastal flooding at your nearest coastline</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>65%</td>
<td>61%</td>
</tr>
<tr>
<td>Don't know</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Base: All organisations in England (1,976) in total, and 1,700 businesses

The reduction in the proportion of organisations significantly affected by these events, may partly explain the drop in concern in climate change, given the correlation between experience of these events and concern about climate change. However, it is likely that this is only one explanatory factor, as the drop in concern about climate change is more severe than the drop in experience of extreme weather events. Furthermore, the findings also suggest that some organisations do not make the link between climate change and extreme weather.

Results by audience

Looking at different types of organisation (see Figure 6), local authorities are by far the most likely to have been significantly affected by these events: over half (56%) say they have, although this is lower than was seen in 2009/10 (76%). Health trusts are more likely to have been affected by an intense heat wave (10% compared to 3% overall). Otherwise, experience of these events is broadly consistent across other sectors.

Although slightly fewer have experienced these events than in 2009/10, businesses are just as likely to have been affected by them as they were three years ago. Three in ten (31%) say they have been, in-line with 2009/10 (32%).
Of respondents who say their organisation has been significantly affected by changes in the climate, four in five (79%) say their workforce or customers were affected, while over half say it impacted on logistics, or processes such as production or service delivery (both 57%). Half (50%) say their premises were impacted and for two in five (41%) organisations there were consequences for their finances (including investment, insurance or stakeholder reputation). Just three in ten (30%) say their markets were affected, but this is higher among businesses (37%).
**Figure 7**

**How does climate change impact organisations?**

**Q14: Earlier you said that your business / organisation has been significantly affected by changes in climate. When your business / organisation was affected by this event/ these events, was there an impact on any of the following? (Multicode)**

<table>
<thead>
<tr>
<th>Impact Area</th>
<th>Businesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>People such as your workforce or customers</td>
<td>79%</td>
</tr>
<tr>
<td>Logistics, such as supply chains, utilities and transport</td>
<td>57%</td>
</tr>
<tr>
<td>Processes, such as production or service delivery</td>
<td>57%</td>
</tr>
<tr>
<td>Your premises: such as maintenance, facilities management or buildings</td>
<td>50%</td>
</tr>
<tr>
<td>Finance, such as investment, insurance and stakeholder reputation</td>
<td>41%</td>
</tr>
<tr>
<td>Markets, for example changing demand for goods and services</td>
<td>30%</td>
</tr>
<tr>
<td>None of these</td>
<td>2%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Base:** All organisations in England whose business/organisation has been significantly affected by weather events in the last 3 years (612 in total, and 509 businesses)
3 Climate change – opportunity or threat?

This chapter presents responses to climate change and whether the likely impacts are seen as threats or opportunities by organisations.

3.1 Perception of climate change impacts as threats or opportunities

Overall findings

Of the possible effects of climate change asked about, the one most respondents see as a threat for their organisation is localised flooding: three in four consider this a threat, as was the case in 2009/10, and one in three (34%) think it is a large threat. This is very consistent with 2009/10 which suggests that the recent flooding events in November and December 2012 have not necessarily led to a surge in concern about this aspect of a changing climate. It should be noted though the 2009/2010 was also conducted against a backdrop of severe flooding that affected much of the UK.\(^8\)

A wet rainy winter is also considered a threat by a significant proportion of organisations: just over half (52%) believe it is a threat, with one in five (18%) seeing it as a large threat. An intense heat wave lasting a week is thought to be a threat by just under half (45%), while one tenth (10%) believes it presents an opportunity to their organisation.

A particularly warm summer is more divisive: one in four (26%) see this as a threat, while almost as many (20%) consider it an opportunity. A very mild winter is the only event that respondents are more likely to see as an opportunity (25% do so) than as a threat (12%). Overall, the results indicate that these possible impacts of climate change are considered no more or less of a threat than in 2009/10.

As reported in 2009/10, organisations with a greater knowledge of climate change, or that have been directly affected by it, are generally more likely to recognise these events as future threats. The only exclusions to this are in relation to flooding – either localised flooding caused by heavy downpours, or coastal flooding – both of which are equally seen as threats regardless of personal understanding of climate change.

When compared with the 2009/10 findings, self-reported understanding of climate change is less of a differentiator in regard to perceptions of the threat posed by flooding. In 2009/10 individuals reporting a greater knowledge of climate change were more likely to see flooding as a threat than those with lower awareness. This is no longer the case, perhaps suggesting that there is now a higher level of underlying recognition of flooding as a potential problem. This may be a result of the widespread flooding that was seen across the UK in November and December 2012, shortly before and during the early stages of this fieldwork. While the individuals involved in this research were no more likely to have experienced flooding than the research sample in 2009/10, the 2012 flooding received extensive media coverage which may have contributed to this shift in opinion.

**Results by audience**

In terms of different sectors, businesses tend to be less likely than health trusts, educational establishments and local authorities to recognise several events as threats; including warm summers, dry summers, heat waves, wet winters and localised flooding. Local authorities on the other hand, are most likely to see a wet, rainy winter as a threat (83% compared to 52% overall), while health authorities are most likely to see a warm summer (57% vs. 26% overall) and heat waves (84% vs. 45%) as threats.
There continue to be some differences between smaller and larger companies in how they perceive threats:

- Larger firms are more likely than smaller ones to consider localised flooding a threat (74% of companies with at least 50 employees vs. 55% of those with less than 50)
- Conversely, smaller firms (those with fewer than 50 employees) are more likely than larger ones (with at least 50 employees) to see warm or dry summers as opportunities:
  - A particularly warm summer (37% vs. 21%)
  - A particularly dry summer (29% vs. 15%)
  - An intense heat wave lasting a week (25% vs. 11%)

Businesses were asked whether they see climate change and its impacts as presenting an opportunity for new products or services, and the results are presented in Figure 10. Overall, a significant proportion - just under half (46%) – recognise climate change impacts as an opportunity in this respect.
Certain types of business are more likely to take this view:

- Those reporting a higher level of understanding of climate change (57%);
- Those whose business has been significantly affected by extreme weather (53% vs. 44% that have not been); and
- Businesses that have comprehensively assessed current and future threats of climate change, taken action on them and made it part of the way they plan (55%).
4 Planning for climate change

This chapter explores the extent to which individuals have considered the risks or opportunities that climate change presents to their organisation, as well as the plans and action they have taken as a result. It also looks at the planning time horizons for organisations and the types of climate change impacts that have been included in risk assessments. Finally, it considers the triggers that might influence whether organisations plan with climate change in mind.

4.1 Extent of actions taken and plans made regarding climate change

Overall findings

Respondents show a broad range in the level of thought they have given to the risks or opportunities a changing climate could present to their organisation. Around one quarter (23%) haven’t yet thought about climate change. These are roughly evenly split between those who plan to give it some consideration in the future (11%) and those who have no plans to do so (12%). Around three quarters of respondents (73%) have therefore at least begun looking at the threats and opportunities posed by a changing climate.

Of those who have begun to give this some consideration, the most common response is at level two: one in four (23%) say they have identified priorities and started acting on them. At higher levels of action, around one in six respondents (15%) say they have comprehensively assessed current and future threats which have led to actions being taken and the inclusion of climate change as part of their planning process. This means that around two in five (38%) respondents are now taking some sort of action in relation to adaptation.

Of the remaining organisations, a further 18% have thought about what to do about present and future threats and opportunities, but have not taken any action and a similar number are just getting started.
Comparing these results to the baseline survey in 2009/10, a similar percentage of respondents are taking no adaptation action. However a greater number of organisations have moved beyond a simple analysis of the risks and opportunities, to taking action on them. The overall proportion of respondents who have not yet looked at climate change or who are just getting started has fallen from half (51%) to around one in three (36%). Consequently, where one in four (26%) organisations were taking action 2009/10, now around two in five (38%) are. Furthermore, the findings suggest that there has been a significant increase in the number at higher capacity levels: the percentage of respondents whose organisations have comprehensively assessed current and future threats and taken action on them has more than doubled, from one in 14 (7%) to one in seven (15%).

The results therefore suggest that, whilst the proportion who have not engaged with climate change at all is unchanged, there has been further advancement among those who were already making it part of their plans.

**Results by audience**

The progress made in adaptation is not even across different types of organisation: most significant progress has been among local authorities and the health sector, with around three in five of each group now taking some form of action (65% of local authorities and 62% of health authorities). Although the sample size of respondents from the health sector is small, almost four times as many health authorities are now taking action when compared with 2009/10.

Respondents from education and third sector organisations are least likely to say they have begun taking action (31% and 22% respectively). The sample sizes for these groups are too small to be able to say whether the differences when compared to 2009/10 are statistically significant. One in three businesses are now taking some form of action on adaptation.
Figure 12

Consideration of risks/opportunities

% of organisations that are at response levels 2 or above (taking action)

The degree to which businesses have considered the risks or opportunities of climate change varies by the size of the company. Those with fewer employees tend to have done less: companies with fewer than 50 employees are more likely to say they have not thought about it at all and have no plans to (31% vs. 10% with 50+ employees). Moreover, just one in five (20%) smaller businesses have taken some action, compared to 38% of larger businesses.

When comparing year to year, mid-sized businesses have made most ground in developing their adaptation capacity: one in three (32%) of those with 10-99 employees are now taking action, compared to one in seven (14%) in 2009/10, while the same proportion (33%) of businesses with between 100 and 249 employees now do so compared to 23% in 2009/10.
Moreover, organisations that make important decisions over the longer term tend to be better prepared: those making decisions beyond 5 years into the future also tend to take more action in terms of adaptation.

As was the case in 2009/10, organisations with greater (self-reported) knowledge of climate change, and whether they should adapt to it, are more likely to have taken action. Almost half (42%) of those that feel they do not have enough information about adaptation have not thought about climate change at all, compared to one in six (17%) of respondents with sufficient information. Conversely, almost half (44%) of informed organisations have taken action, whereas just one in five (20%) of those who lack the required information have taken some action.

As with concern about climate change, experience of its consequences also has a positive impact on the degree to which respondents have considered risks/opportunities and made plans; individuals that say their organisation has been significantly affected by extreme weather are more likely to have considered the future risks/opportunities (85% vs. 68% who have not been affected).

4.2 Allocation of budget and staff to plan for and manage climate risks

Overall findings

As well as exploring the degree to which organisations have considered the impacts of climate change and the extent to which they have taken action as a result, this research also considered the specific actions that have been undertaken. As Figure 14 shows, over half (55%) of respondents who have begun looking at present and future threats have allocated either staff time or budget to planning for and managing these risks. The allocation of staff
time (52%) is more common than allocating budget (38%) whilst two out of five (38%) have allocated neither (7% do not know).

Figure 14

Resources committed to planning for climate change

Q17: Has your business / organisation allocated any budget or staff time to plan for and manage the risks of a changing climate?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes - either</td>
<td>55%</td>
</tr>
<tr>
<td>Yes - budget</td>
<td>38%</td>
</tr>
<tr>
<td>Yes - staff time</td>
<td>52%</td>
</tr>
<tr>
<td>No - neither</td>
<td>38%</td>
</tr>
<tr>
<td>Don't know</td>
<td>7%</td>
</tr>
</tbody>
</table>

Base: All organisations in England who have looked at the risks or opportunities of a changing climate (1020)

Results by audience

Local authorities are much more likely than other sectors to have allocated resources to adaptation, with three quarters (76%) having allocated either budget or staff time, compared with half (55%) overall. This follows on from the earlier finding that local authorities are, on average taking more adaptation action than respondents in other sectors: local authorities would need to have committed some level of resource towards planning for climate change to do this. Respondents in the education sector are more likely not to have allocated anything.
In the health sector, two in three have allocated staff time or budget, however the limited sample size (36) should be noted.

In line with other findings which point to larger businesses being better prepared, they are also more likely to have allocated resources to planning for climate change than smaller ones. Over half (54%) of those with more than 100 employees have committed resources to climate change, whereas for smaller businesses the corresponding figure is one in three (36%).

As would be expected, respondents at the highest levels of adaptation capacity are even more likely to have allocated some form of resources to it; two in three (67%) of those who say they have begun taking action on them, and made it part of their planning process, say they have allocated staff time or budget. However, this does mean that one in four (24%) organisations at the highest (self-reported) levels of capacity have not allocated specific staff or budget to dealing with the impacts of climate change (a further nine per cent do not know either way). While this may appear contradictory, it may be that these activities are not ring-fenced specifically to ‘dealing with climate change’, and are instead an overall part of an existing role or business activity.

Unsurprisingly, respondents that have a greater personal knowledge of climate change, are concerned about the effects of climate change in the UK and whose organisation has been significantly affected by climate change are all more likely to have committed budget or staff time to planning for climate change. These three groups could all be expected to prioritise planning for climate change more than the average. Similarly, a key differentiator is the extent to which organisations make long-term decisions; respondents are more likely to have allocated resources the further into the future their planning horizons are.
Figure 16

**Resources committed to planning for climate change - by planning timescales**

**Q17: Has your business / organisation allocated any budget or staff time to plan for and manage the risks of a changing climate?**

<table>
<thead>
<tr>
<th>Planning horizons</th>
<th>% that have allocated at least one of staff time or budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 2 years</td>
<td>33%</td>
</tr>
<tr>
<td>2 to 3 years</td>
<td>49%</td>
</tr>
<tr>
<td>3 to 5 years</td>
<td>58%</td>
</tr>
<tr>
<td>5 to 10 years</td>
<td>63%</td>
</tr>
<tr>
<td>10 years or more</td>
<td>71%</td>
</tr>
</tbody>
</table>

Base: All organisations in England who have looked at the risks or opportunities of a changing climate (1020)
4.3 Future planning and business decisions

Overall findings
All respondents were asked how far into the future they make key decisions, such as relocations and major capital projects. On average, organisations surveyed plan for important decisions such as these 6.7 years into the future. Two out of five (41%) respondents plan for such decisions between 3 and 10 years into the future. The remainder tend to have shorter term planning lead times: three out of ten (30%) take these decisions less than three years into the future, compared to one in seven (14%) who plan more than 10 years ahead.

Figure 17

Planning for the future

Q3: When your business / organisation needs to make important decisions that can’t be changed easily ... how far in to the future would you tend to plan at most?

The mean lead time of 6.7 years is significantly lower than the mean of 8.4 from the 2009-10 survey, and the percentage of respondents planning more than 5 years into the future has fallen from 46% in 2009-10 to 34% this year.
Results by audience

Businesses generally report shorter-term planning timescales now than in 2009/10; the mean has fallen 6.7 years to 5.6. The findings for different company sizes are similar to the baseline wave, i.e. larger companies tend to have longer planning cycles. Nevertheless, whilst the lead time has fallen across all company sizes, the change has been most marked for small companies; those with fewer than 10 employees now, on average, plan 2.4 years ahead, compared to 4.8 years in 2009/10. This could be because they are particularly affected by economic uncertainty.

Figure 18

### Planning horizons by sector

**Q3. When your business/organisation needs to make important decisions that can’t be changed easily, like where to be located/building a new premises, or making big new investments, how far in to the future would you tend to plan at most?**

<table>
<thead>
<tr>
<th>Sector</th>
<th>2010</th>
<th>2013</th>
<th>Average number of years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>8.9</td>
<td>6.7</td>
<td>7.4</td>
</tr>
<tr>
<td>Third sector</td>
<td>10.4</td>
<td>8.2</td>
<td>9.3</td>
</tr>
<tr>
<td>Health</td>
<td>18.6</td>
<td>13.1</td>
<td>15.8</td>
</tr>
<tr>
<td>Education</td>
<td>6.7</td>
<td>5.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Local authorities</td>
<td>18.6</td>
<td>14.2</td>
<td>16.3</td>
</tr>
</tbody>
</table>

Similarly, as was the case in 2009/10, local authorities again have the longest planning horizons. However, average planning timescales have become much narrower, falling from 18.6 years to 13.1. This uncertainty may reflect the ongoing changes that are being experienced with local government, but it has not prevented local authorities from further developing their adaptive capacity. What is more difficult to ascertain, however, is whether this shorter-term planning process is impeding their ability to develop capacity more quickly.

Respondents in the health sector still look further ahead than private businesses, although their mean lead times have also fallen (from 10.4 years to 8.2).

Even though this question pertains to forward planning in general, rather than for climate change specifically, those respondents one might expect to be better prepared for climate change i.e. those who claim to have a great deal of knowledge about climate change, have adequate information on adaptation, are concerned about climate change impacts or whose organisation has been significantly affected by them all tend to plan further into the future. This suggests that there may be some link between climate awareness and a tendency to think about the future.
4.4 Climate risk assessments

Overall findings

Among organisations that have begun looking at present and future climate threats, the impacts they have most commonly considered are flooding from heavy rain and snow and ice (selected by 76% and 74% respectively). A further three out of five respondents (60%) say they have considered flooding from rivers, but only one in four (26%) have looked at flooding from the sea. This suggests that although flooding is an area of serious broad concern, coastal flooding is likely to predominantly have been considered by coastal respondents.

Around a half of respondents considered heat waves (56%), storms (56%) and droughts (54%) in their climate risk assessments. The answers to this question broadly suggest that organisations have considered more extreme precipitation events and their associated impacts than those of increased temperatures.

Figure 19

Climate impacts included in risk assessments

Q16: When your business / organisation has looked at the risks or opportunities of a changing climate which, if any, of the following did the assessment consider? (Multicode)

<table>
<thead>
<tr>
<th>Climate Impact</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flooding from heavy rain</td>
<td>76%</td>
</tr>
<tr>
<td>Snow and ice</td>
<td>74%</td>
</tr>
<tr>
<td>Flooding from rivers</td>
<td>60%</td>
</tr>
<tr>
<td>Heatwaves</td>
<td>56%</td>
</tr>
<tr>
<td>Storms</td>
<td>56%</td>
</tr>
<tr>
<td>Drought or availability of water</td>
<td>54%</td>
</tr>
<tr>
<td>Other climate impacts</td>
<td>31%</td>
</tr>
<tr>
<td>Flooding from the sea</td>
<td>26%</td>
</tr>
<tr>
<td>None of these</td>
<td>3%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>3%</td>
</tr>
</tbody>
</table>

Base: All organisations in England who have looked at the risks or opportunities of a changing climate (1020)

There is a direct link between being affected by extreme weather and considering these events in risk assessments. Figure 20 shows the different climate events included in risk assessments of the following groups:

- Those who have been affected by the specific climate event\(^9\) in the last three years;
- Those who have been affected by any climate event in the last three years;

\(^9\) It should be noted that the specific climate events have been linked based on the answers to question 6 (whether they have been affected by the impacts of climate change in the last three years) as follows: Flooding from heavy rain / flooding from rivers – a heavy downpour causing localised flooding in your area lasting a few days; Heat waves - an intense heat wave lasting a week; Drought - a particularly dry summer; Flooding from the sea - severe coastal flooding at your nearest coastline.
• The total of all organisations; and
• Those who have not been affected by any climate event in the last three years.

As can be seen, organisations that have been impacted by any climate event recently are generally more likely to have considered these in their risk assessments. There is an even stronger link with the specific climate events that have been experienced; around nine in ten organisations that have been affected by flooding or heat waves have assessed the risks these events pose to their organisation. While flooding from the sea is not included by many respondents, nine in ten (91%) organisations that have experienced coastal flooding have included it in their risk assessment.

Figure 20

Climate impacts included in risk assessments

Q16: When your business / organisation has looked at the risks or opportunities of a changing climate which, if any, of the following did the assessment consider? (Multicode)

Results by audience

Local authorities are significantly more likely to have considered all of the named impacts except snow and ice. This is particularly the case for flooding from heavy rain and rivers, with over 90% of local authorities having taken these into account in their assessments (95% and 93% respectively). Health authorities are most likely to have considered snow and ice (97%), storms (77%), heat waves (97%) and drought (86%).
Figure 21

<table>
<thead>
<tr>
<th></th>
<th>Private (844)</th>
<th>Education (58)</th>
<th>Local Authorities (64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drought or availability of water (e.g. water restrictions)</td>
<td>50</td>
<td>32</td>
<td>74</td>
</tr>
<tr>
<td>Flooding from heavy rain</td>
<td>70</td>
<td>65</td>
<td>95</td>
</tr>
<tr>
<td>Flooding from rivers</td>
<td>54</td>
<td>33</td>
<td>93</td>
</tr>
<tr>
<td>Flooding from the sea</td>
<td>23</td>
<td>10</td>
<td>42</td>
</tr>
<tr>
<td>Heat waves</td>
<td>46</td>
<td>58</td>
<td>78</td>
</tr>
<tr>
<td>Storms</td>
<td>52</td>
<td>40</td>
<td>70</td>
</tr>
<tr>
<td>Snow and ice</td>
<td>70</td>
<td>69</td>
<td>80</td>
</tr>
<tr>
<td>Other climate impacts</td>
<td>30</td>
<td>22</td>
<td>36</td>
</tr>
</tbody>
</table>

Those with a great deal of personal knowledge of climate change (41%) and who are very concerned about the effects of climate change in the UK (37%) are more likely to say they have looked at other climate impacts than the overall sample (31%). The proportion of respondents from these groups who say they considered the named impacts are in line with the overall findings, suggesting they looked at other impacts in addition to the more common ones i.e. these more climate-aware organisations had a broader risk assessment. Those who have allocated resources to planning for climate change report considering all impacts to a greater extent than organisations that have not set aside staff time or budget.

4.5 Triggers to plan

Overall findings

Organisations were asked for their level of agreement on a variety of statements regarding the need for planning for climate change and what triggers might make planning more likely. As in 2009/10, the economic case for adapting to climate change is a strong driver; three in four (76%) agree that they would think about planning for climate change if it would save them money. Only one in seven (14%) of respondents disagree with this statement, underlining the importance of economic considerations.

The first and second statements both relate to reasons organisations might give not to take action or plan for climate change. Almost a third (31%) agree that climate change in the UK is more of a threat to nature than to humans, which has increased from one in four (25%) in 2009/10. Similarly, one in five (21%) agree that they don’t need to plan given that their insurance would cover such eventualities; the corresponding figure in 2009/10 was 15%. This is interesting in light of the finding that the percentage of respondents who have not thought about taking action to prepare for climate change has fallen. The proportion saying that insurance removes the need to make further plans has increased across the sample; even those that are at the higher levels of adaptation agree with this statement and are more likely to do so than in three years ago (22% compared to 10% in 2009/10).

Nevertheless, half of respondents (51%) disagree that climate change is predominantly an issue for the natural environment, and six out of ten (61%) do not feel insurance means they do not need to plan. This suggests most organisations do not believe a lack of planning for climate change can be justified on these grounds.
Results by audience

Businesses were most likely to agree with the economic trigger for planning for climate change in 2009-10 and this remains the case. However, the economic impulse to plan has increased for this group, 79% agreeing in 2012/13 compared to 74% in 2009/10.

In terms of the belief that insurance negates the need to plan, the overall increase in agreement with this statement is mainly driven by businesses (agreement has increased from 16% to 23%). As in 2009-10, smaller businesses are most likely to give this as a reason not to plan.

The following three statements all pertain to triggers to plan based on the actions of others. There is no consensus on the impact that competitors’ planning for climate change would have on businesses, with four out of ten both agreeing (42%) and disagreeing (40%) that it would influence their behaviour. Businesses with shorter planning timescales are most likely to agree (48% vs. 39% with longer planning horizons), suggesting that those focusing on shorter-term business pressures first need to see pioneers leading the way on adaptation.

The influence of norms is stronger in the public and third sectors, with over half (57%) agreeing they would plan more carefully if they saw similar organisations doing so, with a quarter (26%) disagreeing. Again this broadly replicates what was discovered in 2009-10.

Similarly, six out of ten (58% for businesses and 64% among third sector respondents) outside the public sector say they would consider planning more carefully if the Government did likewise, and only one in five (21%) businesses disagree with this statement and one in seven (14%) third sector organisations do. The influence of the Government was found to be equally significant in 2009-10.

Viewing the levels of agreement with these three statements as a whole, as in 2009-10, private sector organisations would be influenced by the behaviour of the Government and
more so than their competitors, whereas organisations in other sectors are influenced both by the Government and similar organisations.

Figure 23

### Triggers to plan for the effects of climate change

**Q11:** I’m going to read out some statements people have made about planning for the effects climate change could have on their organisation. For each one, please tell me to what extent you agree or disagree. Would you say you...

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree (%)</th>
<th>Tend to agree (%)</th>
<th>Neither agree nor disagree (%)</th>
<th>Tend to disagree (%)</th>
<th>Strongly disagree (%)</th>
<th>Don't know (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’d consider planning more carefully for climate change if I saw my competitors doing it (Asked of private sector only - 1700)</td>
<td>14</td>
<td>28</td>
<td>14</td>
<td>23</td>
<td>17</td>
<td>4%</td>
</tr>
<tr>
<td>I’d consider planning more carefully for climate change if I saw other organizations that are like mine doing it (Asked of all except private sector - 276)</td>
<td>14</td>
<td>43</td>
<td>15</td>
<td>17</td>
<td>9</td>
<td>2%</td>
</tr>
<tr>
<td>I’d consider planning more carefully for climate change if I saw the Government was doing it (Asked of third and private sector only - 1750)</td>
<td>22</td>
<td>37</td>
<td>19</td>
<td>14</td>
<td>7</td>
<td>2%</td>
</tr>
</tbody>
</table>

Base: All organisations in England (1976) All sub-bases indicated in brackets

Overall findings

Respondents who said they have considered the risks or opportunities of a changing climate were asked if they had also considered potential threats to suppliers and supply chains: over half (55%) say that they have.

Respondents who have allocated resources to planning for climate change are more likely to have considered suppliers and supply chains, as are those who have adequate information on adaptation. Both of these groups of respondents are more likely to be aware of the possible impacts of climate change on supply chains and how this affects their own operations.

Results by audience

As the following table shows, the proportion of local authorities and health authorities that have considered these issues is much higher than for other groups (74% and 68% respectively), whereas for educational establishments it is much lower (31%).
### Threats to suppliers and supply chains

**Q21:** You said your business/organisation has considered the risks or opportunities of a changing climate. Did you consider any potential threats to your suppliers or supply chains?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>74%</td>
<td>19%</td>
<td>7%</td>
</tr>
<tr>
<td>68%</td>
<td>23%</td>
<td>9%</td>
</tr>
<tr>
<td>52%</td>
<td>40%</td>
<td>8%</td>
</tr>
<tr>
<td>31%</td>
<td>62%</td>
<td>7%</td>
</tr>
</tbody>
</table>

**Base:** All organisations in England who have looked at the risks or opportunities of a changing climate (10,222. Individual base sizes in brackets)
5 Information and support

This section presents some of the barriers faced by lower capacity organisations in taking action to prepare for climate change. Please note this is intended to provide headline findings regarding barriers to action, but the separate qualitative depth interviews (‘Adaptive capacity follow on’ project) explore these barriers in greater detail.

Overall findings

This research shows that, for organisations that have taken no action in preparing for a changing climate, the single biggest factor inhibiting them is in relation to budgetary/financial restrictions, with more than one in four (29%) saying this. The findings also indicate that a significant proportion of organisations not taking action, feel that preparing for climate change just isn’t relevant to them, with one in nine (11%) saying this.

However, as Figure 25 shows, while finance/budgetary factors are the most common barrier, the most common response is that there is in fact nothing stopping them from taking action, with three in ten (31%) saying this. This suggests that, although they are taking very little action in regard to climate change, they do not feel that there is anything more that they need to do, or are not aware of what more they might be able to do.

Figure 25

### Barriers faced by lower capacity organisations to action on climate change

#### Q23: What, if anything, prevents your business / organisation from taking action to prepare or make plans for changes in the climate? (Multicode)

- Not enough money/finance/budget: 29%
- Isn’t relevant to organisation: 11%
- Availability of information/advice on action: 10%
- Not enough time: 8%
- Uncertainty of impact of climate change: 7%
- Uncertainty of climate projections: 6%
- Availability of information on climate change: 5%
- Not enough staff: 4%
- Lack of/poor planning/short term plans: 3%
- Other: 18%
- Nothing prevents us: 31%
- Don’t know: 4%

Base: All organisations in England who have taken little or no steps towards preparing for a changing climate (883)

Moreover, those that know least about climate change are significantly more likely than average to say that nothing prevents them from taking action (39% compared with 31%). This suggests that for this group taking action to prepare for a climate change is not considered a pertinent issue for them and therefore not prioritized.
Planning timescales are also relevant when looking at barriers to adaptation. Two in five (38%) organisations that only plan up to two years into the future say that there is nothing preventing them from taking further action. This compares with a figure of one in five (21%) for organisations that plan at least 10 years into the future. It may be the case that organisations with shorter-term planning horizons therefore do not consider the impacts of climate change as having current or short-term consequences for their organisation.

Conversely, those with the longest planning horizons are more likely to say that the ‘uncertainty of the impacts of climate change’ prevents them from taking action. One in four (23%) who plan at least ten years into the future cite this, compared to just five per cent who have shorter-term planning cycles. This might indicate that these organisations are engaging more with the precise implications of climate change, and are trying to make their decisions based on reliable assumptions and data.

**Results by audience**

Within the business audience, smaller companies with fewer than 50 employees are more likely than larger business to say that nothing prevents them from taking action to prepare for climate change (43% vs. 30% with at least 50 employees).

Larger businesses (with at least 250 employees) on the other hand are more likely than businesses overall to say that uncertainty of climate impacts is an inhibiting factor (11% saying this compared with just 7% overall). They also cite availability of information on what action can be taken as a barrier, 14% compared to 9% of businesses overall.

It should be noted that the base sizes for other audiences at this question are very small, and for this reason we do not report on them.
5.1 Information relating to adaptation

5.1.1 Availability of information

Overall findings

As was the case in 2009/10, overall, most organisations surveyed in this research (75%) feel they have enough information to enable them to decide whether they need to alter their plans because of a changing climate. Only one in twenty (5%) say they definitely do not have enough information.

Figure 26

Do businesses/organisations have enough information?

Q7 Overall, do you feel that your business /organisation has enough information to know whether you should change any of your plans because of a changing climate in the UK?

<table>
<thead>
<tr>
<th>Year</th>
<th>Yes, definitely (%)</th>
<th>Yes, probably (%)</th>
<th>Probably not (%)</th>
<th>Definitely not (%)</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>33</td>
<td>42</td>
<td>17</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>75%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>35</td>
<td>38</td>
<td>18</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>73%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Base: All organisations in England (1976)

Results by audience

Local Authorities and health bodies are most likely to say they have sufficient information (85% and 86%) and are significantly more likely to say so than those from the education or business audiences as Figure 27 shows. On the other hand smaller businesses with fewer than 10 employees are most likely to say they do not have the necessary information (34%, compared to 22% overall).
5.1.2 Main sources of information used

The section above outlines how, overall, three-quarters of all audiences agree that they have adequate information to allow them to prepare for a changing climate. The following section looks in further detail at those who say they have enough information, particularly in terms of the main sources of this information.

Overall findings

As was the case in 2009/10, the ‘media in general’ remains the most popular source of information about what the impacts of climate change will be, with around one in three (31%) saying they receive information through these means.

The research shows that official bodies are more frequently used as sources of information on the impact of climate change. One in five (18%) of those who say they have enough information say they would use the Environment Agency as a source of information, which is a significant increase on the previous wave where only one in nine said this (11%). This may reflect the new responsibilities the Environment Agency have taken on with regard to adaptation. The research also shows that consulting Local Authorities for information on climate change has also increased (from 7% to 11%).

Those that have taken action on climate change adaptation are more likely to use the Environment Agency, the Government generally and also Government websites as a source for general information on climate change. One in five (20%) organisations taking the most extensive action on adaptation sought information from the Government. Those that haven’t thought about the implications of climate change are more likely to say they would consult the media in general (43% compared to 38% who are ‘just getting started’, and 26% of those who have at least considered the threats/opportunities).
## Sources of information about climate change (used)

**Q9. Which have been your main sources of information about what the impacts of climate change will be? (Multicode)**

<table>
<thead>
<tr>
<th>Source of Information</th>
<th>2013</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>The media in general</td>
<td>31%</td>
<td>34%</td>
</tr>
<tr>
<td>Internet search engine</td>
<td>16%</td>
<td>19%</td>
</tr>
<tr>
<td>Environment Agency</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>Newspapers</td>
<td>14%</td>
<td>19%</td>
</tr>
<tr>
<td>The Government (general)</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>TV</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Local Authority</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>Gov. website</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>Specialist publications</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>Other websites</td>
<td>14%</td>
<td>12%</td>
</tr>
<tr>
<td>Head office/internal/own research</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Colleagues</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Defra</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Trade Assn/Industry Body</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Met Office</td>
<td>3%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Base: All organisations in England who do have enough information (1469)

### Results by audience

The trend in terms of the popularity of sources of information is generally that businesses tend to prefer non-official sources of information, with only one of their top five sources of information not being of this nature (Environment Agency at 14%). Conversely only one in five of the Local Authorities' top sources of information was non-official (the media in general at 18%).
Q9. Which have been your main sources of information about what the impacts of climate change will be? (Multicode)

<table>
<thead>
<tr>
<th></th>
<th>Total (1469)</th>
<th>Business (1251)</th>
<th>Education (76)</th>
<th>Local Authorities (64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The media in general (31%)</td>
<td>The media in general (33%)</td>
<td>The media in general (43%)</td>
<td>The Environment Agency (41%)</td>
<td></td>
</tr>
<tr>
<td>Internet Search Engine (19%)</td>
<td>Internet Search Engine (21%)</td>
<td>Local Authority (38%)</td>
<td>The Government – general (38%)</td>
<td></td>
</tr>
<tr>
<td>The Environment Agency (18%)</td>
<td>The Environment Agency (14%)</td>
<td>Newspapers (23%)</td>
<td>Local Authority (19%)</td>
<td></td>
</tr>
<tr>
<td>Newspapers (15%)</td>
<td>Newspapers (16%)</td>
<td>Internet Search Engine (21%)</td>
<td>The media in general (18%)</td>
<td></td>
</tr>
<tr>
<td>The Government – general (14%)</td>
<td>TV (15%)</td>
<td>The Government – general (12%)</td>
<td>Government Website (16%)</td>
<td></td>
</tr>
</tbody>
</table>

Base: All organisations in England who do have enough information (1469)

5.1.3 Preferred sources of information

Overall findings

As indicated by Figure 30, for those organisations that say they do not have enough information on climate change, internet search engines are the most popular preference with just under half (44%) saying they would use this as a source of information. One in five (19%) of this group also say they would look to the Environment Agency to find good information, a statistically significant increase of 10 percentage points from the 2009/10 results.

Overall, among those who feel they do not have enough information, Government websites and other websites are the third and fourth most popular options, with one in six (17%) and one in eight (12%) saying this. Indeed three out of the top five preferred sources of information are accessed using the internet, suggesting a general search for information is the preferred method with this group.

Responses to this question also show that up to 10% of this group say they would not look anywhere for information about what climate change could mean for their organisations, a statistically significant rise of nine percentage points from the 2009/10 survey. Again, this is likely to reflect the lower level of concern shown about climate change in general.
Results by audience

Due to the small base size for respondents apart from businesses, there are few significant differences in responses to this question when it comes to audience type. Businesses in total are however significantly less likely now to cite newspapers as a source, 6% said this in 2011/12 which contrasts with one in six who (17%) who said this in 2009/10. The Environment Agency and the Met Office are, however, more likely to be named as possible sources of good information than they were in 2009/10 (19% name the Environment Agency vs. 7% in 2009/10 and 5% for the Met Office vs. 1% in 2009/10).

5.2 Government support

The final sub-section in this chapter looks at how, in the view of respondents, the Government can help organisations to take into account the impact of climate change when planning for the future.

Overall findings

Across all audiences ‘Funding/subsidies/tax breaks’ was most commonly cited as being the most useful way the Government could help these organisations to take into account the impacts of climate change, with four in five (78%) saying this. This is to an extent reflective of how in Section 6.1 ‘budgetary/financial restrictions’ was cited as the most common factor preventing those who had taken little or no steps towards preparing for climate change from doing so.

However only 11 percentage points separate the most popular response with the eighth most commonly cited action. This clustering shows that there is no clear consensus on a single action the Government could take and that organisations require support in a variety of ways.
There is broad support though for the top eight measures indicated in Figure 31. These include measures that personalise and localise the impacts of climate change, for example ‘showing how climate change is relevant to my organisation’ (77%) and providing more information about the effects of climate change in the UK’ (73%).

Figure 31 ranks respondents’ opinions on the most useful ways Government can help. When respondents selected multiple responses to this question a follow up question was asked to specify the single most useful thing the Government could do. Almost a quarter (24%) specified ‘Funding/subsidies/tax breaks’, again the most popular response (albeit, lower than seen in 2009/10).

Figure 31

Help from the Government

Q12a In your view, what would be the most useful ways the Government could help organisations like yours to do this?
Q12b And which, in your opinion, is the most useful?

<table>
<thead>
<tr>
<th>Most useful ways Government could help</th>
<th>Single most useful</th>
<th>2009 Useful ways/Single most</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding/subsidies/tax breaks</td>
<td></td>
<td>78%</td>
</tr>
<tr>
<td>Show how climate change is relevant to my organisation</td>
<td></td>
<td>77%</td>
</tr>
<tr>
<td>Provide more info about effects of climate change in UK</td>
<td></td>
<td>73%</td>
</tr>
<tr>
<td>Show how climate change offers opportunities</td>
<td></td>
<td>72%</td>
</tr>
<tr>
<td>Reduce red tape/bureaucracy/regulation</td>
<td></td>
<td>71%</td>
</tr>
<tr>
<td>Say what effects will be not might be</td>
<td></td>
<td>68%</td>
</tr>
<tr>
<td>Promote new minimum standards</td>
<td></td>
<td>67%</td>
</tr>
<tr>
<td>Use less jargon/scientific language</td>
<td></td>
<td>66%</td>
</tr>
</tbody>
</table>

Base: All organisations in England (1976)

Results by audience

Analysis by audience shows Local Authorities are the most likely to specify funding as the most useful thing the Government could do. Forty-eight per cent (of Local Authorities that thought the Government could do more than one thing) thought funding/subsidies/tax breaks would be the most useful, double the average across all audiences (24%) and 28 percentage points higher than the figure for businesses overall (20%). It is noteworthy that where 30% of businesses gave this response in 2009/10, 20% do in 2012/13.

Figure 32 shows, by audience, figures for the most useful ways the Government can help. The figures on the left show the proportion that consider this as one of the most important forms of assistance while the figure on the right indicates the percentage considering it the most useful. We can see that across all audiences ‘reducing red tape/bureaucracy’ is a prevalent response, but that when asked about what the most useful action would be, this is generally not seen as the most useful thing. Three in four (73%) businesses chose this initially, but only nine per cent would say this was the most useful thing the Government could do.
Organisations just starting to think about how climate change impacts on their organisation are 11 percentage points more likely than those who are taking the most action to say they want more information on precisely how climate change might affect their organisation (85% compared with 73%). This indicates that while they appreciate that climate change is something that might be relevant to them, they need more precise and tangible examples of how it could impact them before they develop their adaptation plans further.
6 Appendices

6.1 Appendix 1 - Sample sources

**Businesses** were selected at random from the *Experian Business Database* which is a commercial database of UK businesses. These were not job title-specific but consisted of main switchboard numbers and excluded branches (i.e. only office headquarters). Our approach was to get past switchboard/reception and “snowball” to the right individual by describing the type of person we were looking for.

**Local Government** contacts were selected at random from the *Goveval* database, a list of local Government officials. We exported contact details for chief executives, planning officers and environment officers. Telephone interviewing involved initial contact and then recruitment in order to get to the individual best responsible for climate adaptation issues, as job titles do not always match the actual job responsibilities of a given individual. All were classified into one of three types of authority - County Councils, District Councils and Unitary Authorities. London and metropolitan authorities were counted as Unitary Authorities.

**Primary Care Trust** contacts were selected at random through the *Binleys* database of healthcare professionals. We purchased a sample from *Binleys* which consisted of a large selection of job titles which were specifically related to planning and risk management. The interviews achieved were spread geographically over 9 Government regions.

**Third sector organisations** were selected at random from the *MR Sample* database. These contacts were also geographically spread within England.

**Educational institutions** were selected at random from the Edubase database which includes head teachers for lower primary and secondary schools and governing officials in the higher and further educational institutions. The interviews were spread evenly among 9 Government regions.
6.2 Appendix 2 - Questionnaire
Climate Change Adaptation: Awareness Survey – Wave 2
Ipsos MORI draft questionnaire, 04.12.12

Introduction text

Good morning/afternoon/evening. My name is... from Ipsos MORI the independent research organisation. We are carrying out a study on behalf of Defra, the Department for the Environment, Food and Rural Affairs, about the environmental risks and opportunities facing different types of organisations. It doesn’t take longer than 16 minutes.

I would like to reassure you that all the information we collect will be kept in the strictest confidence, and used for research purposes only. It will not be possible to identify any particular individual or organisation in the results.

Screening Text for Private Sector / Third Sector / Health / Education

I would like to speak to the person in your organisation / business with overall responsibility for looking at risks and opportunities for the organisation. This is sometimes called “risk management”

ADD IF NECESSARY:
This would be someone that takes an overview, maintains a risk register and advises your board / directors and or owners about risks.

IN SMALLER PRIVATE AND THIRD SECTOR ORGANISATIONS THIS MIGHT BE ONE OF THE MOST SENIOR MANAGERS.

IF NO POSITIVE RESPONSE TRY:
Perhaps you have someone that takes responsibility for your business’ strategy, business planning for the future or contingencies? Who plans ahead?

Who would manage the problem if your business suffered flood, storm damage, transport or supply chain disruption caused by extreme weather?

ASK TO BE PUT THROUGH TO THAT PERSON, OR GET THEIR DIRECT LINE NUMBER OR ARRANGE A CALL BACK.
Screening Text For Local Authorities

Job Role: I would like to speak to the person who is responsible for managing corporate risk and/or strategy for the organisation or a representative within this area. This would ideally be the person who is responsible at the centre of the local authority for co-ordinating and has oversight of the authority’s core risk management or performance processes and documentation.
ADD IF NECESSARY:
This is likely to be someone in the chief executive’s department, strategy unit or corporate performance.

ASK ALL ORGANISATIONS:

Q.S1. Can I just check, are you the best person to talk about threats and opportunities facing the organisation at this particular workplace – this is sometimes called risk management - ?

IF THEY ASK WHERE WE GOT THEIR DETAILS:

Businesses have been selected at random from the Experian Business Database (this is a commercial database of UK businesses)
Local Government contacts have been selected at random from the Goveval database
PCT contacts have been selected at random through the Binleys database
Third sector organisations have been selected at random from the MR sample database
Educational institutions have been selected at random from the Edubase database

1. Yes CONTINUE
2. No but they know someone else TAKE REFERAL CONTACT DETAILS OR ASK TO BE TRANSFERRED
3. No and they don’t know anyone else READ OUT BELOW, IF NO SUCCESS CLOSE

We are interested in the activities at this particular workplace. It is unlikely that anyone else will know about this as well as you do.

Firstly, just so we can make sure we are speaking to a good cross-section of different types of organisations, I would like to ask you some background information.

ASK ALL

QS3. What is your job title?
INTERVIEWER PLEASE RECORD JOB TITLE

SECTION A: GENERAL RISK AWARENESS AND PLANNING

Q1. I’d now like to ask you some more questions about your organisation. We’re interviewing businesses in the private sector, charities and other third sector organisations, and bodies and organisations in the public sector. The questions which follow are relevant to all of these different types of organisations. We’d like you to please answer about the organisation you work for whether it’s a business, a charity, a public body or something else.
To what extent, if at all, is your business / organisation currently concerned about the following?
ROTATE STATEMENTS, READ OUT
1. Competition from organisations based abroad (PRIVATE SECTOR SAMPLE ONLY)
2. Competition from local organisations (PRIVATE SECTOR SAMPLE ONLY)
3. The economic downturn
4. Being prepared in case of extreme weather
5. A flu pandemic affecting your staff
6. The effects of climate change on the UK

READ OUT, SINGLE CODE ONLY, ALLOW DK

Would you say your business / organization is ...

Very concerned
Fairly concerned
Not very
Not at all
Or is this not applicable to your business / organisation

ASK ALL
Q3. When your business / organisation needs to make important decisions that can’t be changed easily, [IF PRIVATE/ THIRD SECTOR: like where to be located, / IF EDUCATION / HEALTH / LOCAL AUTHORITIES: like building new premises] or making big new investments, how far in to the future would you tend to plan at most?

IF UNCLEAR:
Think about how long these kinds of decisions would have to last.

DO NOT READ OUT, SINGLE CODE ONLY. CODE FROM THE OPTIONS BELOW:
1. 1. Less than a month
2. 2. 1 month or more, but less than 6 months
3. 3 6 months or more but less than 1 year
4. 4 1 year or more but less than 2 years
5. 5 2 years or more but less than 3 years
6. 6 3 years or more but less than 5 years
7. 7 5 years or more but less than 10 years
8. 8 10 years or more but less than 20 years
9. 9 20 years or more but less than 30 years
10. 10 30 years or more but less than 50 years
11. 11 50 years or more
SECTION B: CLIMATE CHANGE ADAPTATION AWARENESS AND PLANNING
ASK ALL
Q4. How much if anything would you say you personally know about the term ‘Climate change’? Would you say you know...

READ OUT, SINGLE CODE ONLY, ALLOW DK
A great deal
A fair amount
Not very much
Nothing

ASK ALL
Q5. I'm going to read out some of the likely effects of climate change on the UK according to the 2009 UK Climate Projections that the Government use. For each one, please tell me whether you think it presents, overall, a threat or an opportunity for your organisation, or whether it would be both a threat and an opportunity or whether it would make no real difference. Please take into account the possible effects on the people, resources and suppliers your organisation might rely on. Would it be...

PROMPT IF NEEDED:
Even if you haven't given it much thought yet, I'd just like your general impressions please

READ OUT, ROTATE STATEMENTS
1. A particularly warm summer
2. A particularly dry summer
3. An intense heat wave lasting a week
4. A very mild winter
5. A very wet, rainy winter
6. A heavy downpour causing localised flooding in your area lasting a few days
7. Severe coastal flooding at your nearest coastline

Would it be a...

READ OUT, SINGLE CODE ONLY, ALLOW DK
A large threat
A small threat
No real difference
A small opportunity
A large opportunity
Both a threat and an opportunity

ASK ALL
Q6. In the last three years, has your business / organisation actually been significantly affected by any of the types of the events I have just read out?

PROMPT IF NECESSARY: This includes warm summers, dry summers, intense heat waves which last at least a week, mild winters, very wet winters, localised flooding lasting a few days and or coastal flooding.

IF YES PLEASE PROBE ON EVENTS
CODE SPECIFIC ISSUE. MULTICODE 1-7, ALLOW DK
1. Yes - A particularly warm summer
2. Yes - A particularly dry summer
3. Yes - An intense heat wave lasting a week
4. Yes - A very mild winter
5. Yes - A very wet, rainy winter
6. Yes - A heavy downpour causing localised flooding in your area lasting a few days
7. Yes - Severe coastal flooding at your nearest coastline
8. No

SECTION C: INFORMATION ABOUT ADAPTING TO CLIMATE CHANGE

ASK ALL
Q7. Overall, do you feel that your business / organisation has enough information to know whether you should change any of your plans because of a changing climate in the UK?

READ OUT, SINGLE CODE ONLY, ALLOW DK
1. Yes, definitely
2. Yes, probably
3. No, probably not
4. No, definitely not

ASK IF NO (CODES 3 or 4 at Q7) OR DK AT Q7
Q8. Where would you look to find good information about what climate change could mean for your organisation? Where else?

DO NOT READ OUT, MULTICODE OK
1. TV
2. Colleagues
3. Friends
4. Newspapers
5. The media in general
6. Internet Search Engine (Google, Yahoo etc)
7. Specialist publications or magazines
8. The official UK Climate Projections (UKCP09 or UKCP02)
9. A specialist consultancy
10. A government leaflet / book
11. Government website
12. Other website
13. Local Authority
14. Federation of Small Businesses / CBI (Confederation of Business and Industry)
15. Department for Business Enterprise and Regulatory Reform/ Business Industry and Skills / Trade and Industry
16. Insurers / My insurance company
17. The Government (general)
18. The Environment Agency
19. The Carbon Trust
20. Other (specify)
21. Nowhere
22. Professional advisers (e.g. accountants, lawyers)
23. Trade Associations / Industry body
24. Climate Ready advice service (based at the Environment Agency)
25. Academic sources (e.g. universities, professors etc)
26. Intergovernmental Panel on Climate Change (IPCC)
27. Climate Change Risk Assessment (CCRA)
ASK IF YES (CODES 1 or 2 at Q7)

Q9. Which have been your main sources of information about what the impacts of climate change will be?

DO NOT READ OUT, MULTICODE OK, ALLOW DK

1. TV
2. Colleagues
3. Friends
4. Newspapers
5. The media in general
6. Internet Search Engine (Google, Yahoo etc)
7. Specialist publications or magazines
8. The official UK Climate Projections (UKCP09 or UKCP02)
9. A specialist consultancy
10. A government leaflet / book
11. Government website
12. Other website
13. Local Authority
14. Federation of Small Businesses / CBI (Confederation of Business and Industry)
15. Department for Business Enterprise and Regulatory Reform/ Business Industry and Skills / Trade and Industry
16. Insurers / My insurance company
17. The Government (general)
18. The Environment Agency
19. The Carbon Trust
20. Other (specify)
21. Nowhere
22. Professional advisers (e.g. accountants, lawyers)
23. Trade Associations / Industry body
24. Climate Ready advice service (based at the Environment Agency)
25. Academic sources (e.g. universities, professors etc)
26. Intergovernmental Panel on Climate Change (IPCC)
27. Climate Change Risk Assessment (CCRA)

ASK ALL

Q10. Which of these statements best describes how much your business / organisation has thought about the kinds of risks or opportunities a changing climate could present?

READ OUT, SINGLE CODE ONLY, ALLOW DK. REVERSE ORDER OF CODES SO 50% SEE 1-7 AND 50% SEE 7-1

1. We haven’t thought at all about climate change, and don’t plan to
2. We haven’t thought about it, but plan to in the future
3. (response level 0) We have begun looking at it, but are just getting started
4. (response level 1) We have looked at present and future threats and opportunities and thought about what to do about them
5. (response level 2) We have looked at present and future threats and opportunities, identified priorities, and have started acting on these.
6. (response level 3) We have comprehensively assessed current and future threats and opportunities, and have fully planned actions, are taking action on priorities and made this part of the way we plan generally
7. (response level 4) We have comprehensively assessed present and future threats and opportunities, have fully planned and taken action, made it part of how we plan and systematically monitor and implement our actions.
ASK ALL

Q11. I’m going to read out some statements people have made about planning for the effects climate change could have on their organisation. For each one, please tell me to what extent you agree or disagree. Would you say you…

READ OUT, ROTATE ORDER OF STATEMENTS (EXCEPT LAST STATEMENT WHICH IS ALWAYS LAST), SINGLE CODE ONLY, ALLOW DK

Strongly agree
Tend to agree
Neither agree nor disagree
Tend to disagree
Strongly disagree

1. Climate change in the UK is more of a threat to wildlife and our natural environment than to people and cities
2. Our organisation has insurance that would cover extreme weather, so we don’t need to plan much more.
3. (PRIVATE SECTOR ONLY) I’d consider planning more carefully for climate change if I saw my competitors doing it
4. I’d think about planning for climate change if I saw it would save us money
5. (PUBLIC / THIRD SECTOR ONLY) I’d consider planning more carefully for climate change if I saw other organizations that are like mine doing it
6. (ALL except public sector) I’d consider planning more carefully for climate change if I saw the Government was doing it
7. (PRIVATE SECTOR ONLY) The impacts of climate change present us with an opportunity for new products or services

ASK ALL

Q12a. The UK Government wants to help UK organisations including business, third sector organisations and public bodies who are affected, or could be affected, by climate change to take this in to account when planning for the future. In your view, what would be the most useful ways the Government could help organisations like yours to do this?

ASK Q12B IF THEY HAVE CHOSEN MORE THAN ONE CODE ON Q12A

Q12b. And which, in your opinion, is the most useful?

READ OUT, MULTICODE Q12A, SINGLE CODE Q12B, ALLOW DK)

ROTATE STATEMENTS

12. Provide more information about the effects of climate change in the UK
13. Use less jargon and scientific language
14. Say what the effects of climate change will be, not what they might be
15. Funding/subsidies/Tax breaks
16. Reduce red tape / bureaucracy / regulation
17. Show how climate change is relevant to my kind of organisation
18. Show how climate change offers opportunities
19. Promote new minimum standards
20. Other (specify)
21. Nothing
22. Don’t know
ASK ALL WHO CODE 1-7 AT Q6

Q14. Earlier you said that your business / organisation has been significantly affected by changes in climate. When your business / organisation was affected by this event [these events IF CODE MORE THAN 1 AT Q6], was there an impact on any of the following?

INCLUDE CODE(S) SELECTED AT Q6 AS REMINDER FOR INTERVIEWER - REMIND RESPONDENT OF CODE SELECTED IF NEEDED

READ OUT, MULTICODE OK (EXCEPT CODE 7 AND 8)

1. Logistics, such as supply chains, utilities and transport
2. Your premises: such as maintenance, facilities management or buildings
3. People such as your workforce or customers
4. Processes, such as production or service delivery
5. Finance, such as investment, insurance and stakeholder reputation
6. Markets, for example changing demand for goods and services
7. None of these
8. Don’t know (DO NOT READ OUT)

ASK IF CODE 4-7 AT Q10. HIDE ONCE QUOTA TARGET MET AT Q24

Q15. You say your business / organisation has looked at the risks or opportunities of a changing climate. How far into the future were these climate risk assessments based?

IF RESPONDENT GIVES A YEAR, PLEASE ENSURE YOU CODE HOW MANY YEARS THAT REPRESENTS FROM THE PRESENT
DO NOT READ OUT, SINGLE CODE ONLY, ALLOW DK

1. CODE NUMBER OF YEARS (MINIMUM 1, MAXIMUM 1,000)
2. They were based on current climate risks
3. Don’t know (DO NOT READ OUT)

ASK IF CODE 4-7 AT Q10

Q16. When your business / organisation has looked at the risks or opportunities of a changing climate which, if any, of the following did the assessment consider?

READ OUT, MULTICODE 1-8, 9 AND 10 ARE SINGLE CODE. ALLOW DK

1. Drought or availability of water (e.g. water restrictions)
2. Flooding from heavy rain
3. Flooding from rivers
4. Flooding from the sea
5. Heatwaves
6. Storms
7. Snow and ice
8. Other climate impacts
9. None of these
10. Don’t know (DO NOT READ OUT)
ASK IF CODE 4-7 AT Q10
Q17. Has your business / organisation allocated any budget or staff time to plan for and manage the risks of a changing climate?

MULTICODE 1 AND 2. 3 IS SINGLE CODE, ALLOW DK. PROBE FOR EACH OF STAFF/BUDGET

1. Yes – Budget
2. Yes – staff time
3. No
4. Don’t know

ASK ALL APART FROM LOCAL AUTHORITIES. HIDE ONCE QUOTA TARGET MET AT Q24
Q18. Does your business / organisation take any decisions where the outcomes are or could be impacted by climate or weather events?
IF NEEDED: For example, this might include the construction of a new building that has to withstand extreme temperatures or flooding

SINGLE CODE ONLY, ALLOW DK

1. Yes
2. No
3. Don’t know

ASK IF CODE YES AT Q18. HIDE ONCE QUOTA TARGET MET AT Q24
Q19. Do any of these decisions take account of how the climate might change beyond the next 10 years?

SINGLE CODE ONLY, ALLOW DK

1. Yes
2. No
3. Don’t know

ASK IF CODE YES AT Q18. HIDE ONCE QUOTA TARGET MET AT Q24
Q20 Do you expect to take any such decisions within the next five years?

SINGLE CODE ONLY, ALLOW DK

1. Yes
2. No
3. Don’t know

ASK IF CODE 4-7 AT Q10
Q21. You said your business/organisation has considered the risks or opportunities of a changing climate. Did you consider any potential threats to your suppliers or supply chains?

SINGLE CODE, ALLOW DK.

1. Yes
2. No
3. Don’t know

ASK ALL
Q22 To what extent, if at all, is your business/organisation vulnerable to the knock-on effects of extreme or unusual weather abroad - for example, by disrupting supplies from other countries?

PROMPT IF NEEDED: Even if you aren’t sure, we are just looking for a rough indication. We are interested in whether extreme or unusual weather abroad has any knock on effect in the UK

READ OUT:

1. To a great extent
2. To some extent
3. A little
4. Not at all
5. Don’t know (DO NOT READ OUT)
ASK IF CODE 1-3 AT Q10

Q23. What, if anything, prevents your business / organisation from taking action to prepare or make plans for changes in the climate?

MULTI CODE 2-17, SINGLE CODE 1 AND 18. ALLOW DK. DO NOT PROMPT

1. Nothing prevents us
2. It isn’t relevant to our organisation
3. Not enough money/finance/budget
4. Not enough time
5. Not enough staff
6. We don’t have the staff with the right skills or qualifications
7. Uncertainty of climate projections
8. Uncertainty of impacts of changing climate
9. Short term business pressures
10. Availability of information/advice on what action can be taken
11. Availability of information on climate projections
12. Lack of buy-in from senior management
13. Lack of stakeholder buy-in
14. No customer demand
15. Legislation
16. The regulatory framework
17. Other (specify)
18. Don’t know

ASK IF CODE 1-7 AT Q10. DO NOT ASK IF CODE ‘DON’T KNOW’ AT Q10. HIDE ONCE QUOTA TARGET MET AT Q24

Q24. Thank you for taking part in this survey. Defra are carrying out some additional research with organisations to find out about plans they might have made for a changing climate, or reasons why they have not been able to make plans. This would help Government provide support in this area. If you are willing to take part, it would involve Ipsos MORI or our research partners Alexander Ballard calling you at an agreed time that is suitable for you. We could also speak to a colleague if you think someone else is better placed to take part, [SCREEN TO RECORD REFERRAL IF REQUIRED]

The interview would be in December or January and would last around 30 minutes.

Is this something that you would be willing to help with?

SINGLE CODE ONLY,

1. Yes – ASK CONTACT DETAIL QUESTIONS
2. No – THANK AND CLOSE INTERVIEW

QUOTA TO BE SET ON Q24 – ONCE 750 ORGANISATIONS HAVE CODED ‘YES’ AT Q24, QUESTIONS 15, 18, 19, 20 AND 24 WILL BE HIDDEN FROM THE SCRIPT

ASK IF CODE 1 AT Q24

Please could I check that this telephone number is the best number to contact you on [READ OUT NUMBER]? 

Could I also take an email address so we can send you further details of what the conversation would cover?

TAKE EMAIL ADDRESS
ASK ALL

Q13. Defra may also be conducting other research in this area at some time in the next 24 months. Would you be willing to be re-contacted for this research? Should you agree to this, your personal details would be held securely by Defra and be used for no other purposes other than to invite you to participate in other research studies. Responses to this questionnaire will remain confidential.

You would also be able to have your details removed from this panel at any time on request.

SINGLE CODE ONLY

- Yes – would be willing
- No – would not be willing

THANK AND CLOSE
6.3 Appendix 3 - Quotas and weighting

Quotas were set on each audience type to ensure the sample profile was as close as possible to the profile of the 2009/10 baseline survey sample. Weighting was then also applied to the 2012/13 data to ensure the profiles were consistent. Details of the weights that have been applied are in the tables below and overleaf.

Table 2 – Main audience weights

<table>
<thead>
<tr>
<th>AUDIENCE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Third sector</td>
<td>4.08%</td>
</tr>
<tr>
<td>Business</td>
<td>71.73%</td>
</tr>
<tr>
<td>Health</td>
<td>4.08%</td>
</tr>
<tr>
<td>Education</td>
<td>7.84%</td>
</tr>
<tr>
<td>Local Authorities</td>
<td>12.25%</td>
</tr>
</tbody>
</table>

Table 3 – Health Weights

<table>
<thead>
<tr>
<th>Region</th>
<th>East Midlands</th>
<th>East of England</th>
<th>London</th>
<th>North East</th>
<th>North West</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8%</td>
<td>12%</td>
<td>12%</td>
<td>8%</td>
<td>12%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>South Central</th>
<th>South East</th>
<th>South West</th>
<th>West Midlands</th>
<th>Yorkshire &amp; The Humber</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8%</td>
<td>12%</td>
<td>8%</td>
<td>12%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Table 4 – Education Weights

<table>
<thead>
<tr>
<th>Education Type</th>
<th>Further Education</th>
<th>Higher Education</th>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19%</td>
<td>25%</td>
<td>38%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Table 5 – Local Authority Weights

<table>
<thead>
<tr>
<th>Type</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>County</td>
<td>24%</td>
</tr>
<tr>
<td>District</td>
<td>40%</td>
</tr>
<tr>
<td>Unitary</td>
<td>36%</td>
</tr>
<tr>
<td>Sector (SIC)</td>
<td>Number of employees</td>
</tr>
<tr>
<td>----------------------------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>I - ACCOMMODATION AND FOOD SERVICE ACTIVITIES (55-56)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One</td>
</tr>
<tr>
<td></td>
<td>0.23%</td>
</tr>
<tr>
<td>N - ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES (77-82)</td>
<td>0.00%</td>
</tr>
<tr>
<td>A - AGRICULTURE, FORESTRY AND FISHING (1-3)</td>
<td>0.46%</td>
</tr>
<tr>
<td>R - ARTS, ENTERTAINMENT AND RECREATION (90-93)</td>
<td>0.23%</td>
</tr>
<tr>
<td>F - CONSTRUCTION (41-43)</td>
<td>0.46%</td>
</tr>
<tr>
<td>P - EDUCATION (85)</td>
<td>0.23%</td>
</tr>
<tr>
<td>D - ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY (35)</td>
<td>0.46%</td>
</tr>
<tr>
<td>K - FINANCIAL AND INSURANCE ACTIVITIES (64-66)</td>
<td>0.23%</td>
</tr>
<tr>
<td>Q - HUMAN HEALTH AND SOCIAL WORK ACTIVITIES (86-88)</td>
<td>0.46%</td>
</tr>
<tr>
<td>J - INFORMATION AND COMMUNICATION (58-63)</td>
<td>0.23%</td>
</tr>
<tr>
<td>C - MANUFACTURING (10-33)</td>
<td>0.46%</td>
</tr>
<tr>
<td>B - MINING AND QUARRYING (05-9)</td>
<td>0.23%</td>
</tr>
<tr>
<td>S - OTHER SERVICE ACTIVITIES (94-96)</td>
<td>0.23%</td>
</tr>
<tr>
<td>M - PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES (69-75)</td>
<td>0.00%</td>
</tr>
<tr>
<td>O - PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY (84)</td>
<td>0.46%</td>
</tr>
<tr>
<td>L - REAL ESTATE ACTIVITIES (68)</td>
<td>0.23%</td>
</tr>
<tr>
<td>H - TRANSPORTATION AND STORAGE (49-53)</td>
<td>0.46%</td>
</tr>
<tr>
<td>E - WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES (36-39)</td>
<td>0.46%</td>
</tr>
<tr>
<td>G - WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES (45-47)</td>
<td>0.46%</td>
</tr>
</tbody>
</table>
6.4 Appendix 4 - Statistical reliability

Because a sample, rather than every organisation within each sector, was interviewed the percentage results are subject to sampling tolerances. This means that we cannot be certain that the figures obtained are exactly those we would have if everybody had been interviewed (i.e. the ‘true’ values). We can, however, predict the variation between the sample results and the ‘true’ values from a knowledge of the size of the samples on which the results are based and the number of times that a particular answer is given.

Table 7 below illustrates the predicted range for different sample sizes and percentage results at the ‘95% confidence interval’ – i.e. the confidence with which we can make this prediction is 95%, that is, the chances are 95 in 100 that the ‘true’ value will fall within a specified range.

The tolerances that may apply in this report are given in the tables 7 and 8.

Table 7

<table>
<thead>
<tr>
<th>Overall statistical reliability&lt;sup&gt;10&lt;/sup&gt;</th>
<th>Size of sample on which survey result is based</th>
<th>Approximate sampling tolerances applicable to percentages at or near these levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10% or 90%</td>
<td>30% or 70%</td>
</tr>
<tr>
<td>Total sample (1,976)</td>
<td>±</td>
<td>±</td>
</tr>
<tr>
<td>All business (1,700)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Education (101)</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Local authorities (75)</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Health (50)</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Third sector (50)</td>
<td>8</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Ipsos MORI

For example, with a sample of 1,976 people where 30% give a particular answer, the chances are 19 in 20 that the ‘true’ value (which would have been obtained if the whole population had been interviewed) will fall within the range of plus or minus 2 percentage points from the sample result.

When results are compared within a sample (for example all business vs. the total combined average), different results may be obtained. The difference may be ‘real’, or it may occur by chance (because not everyone in the population has been interviewed). To test if the difference is a real one – i.e. if it is 'statistically significant', we again have to know the size of the samples, the percentage giving a certain answer and the degree of confidence chosen. If we assume the ‘95% confidence interval’, the differences between the two sample results must be greater than the values given in table 8:

---

<sup>10</sup> Strictly speaking the tolerances shown here apply only to random samples; but in practice good quality quota sampling has been found to be as accurate.
Table 8

<table>
<thead>
<tr>
<th>Statistical reliability between subgroups</th>
<th>Approximate sampling tolerances applicable to percentages at or near these levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of sample on which survey result is based</td>
<td>10% or 90%</td>
</tr>
<tr>
<td>Total (1,976) vs. business (1,700)</td>
<td>±</td>
</tr>
<tr>
<td>Total (1,976) vs. education (101)</td>
<td>2</td>
</tr>
<tr>
<td>Total (1,976) vs. local authorities (75)</td>
<td>6</td>
</tr>
<tr>
<td>Total (1,976) vs. health (50)</td>
<td>7</td>
</tr>
<tr>
<td>Total (1,976) vs. third sector (50)</td>
<td>9</td>
</tr>
<tr>
<td>Total 2011/12 (1,976) vs. Total 2009/10 (612)</td>
<td>3</td>
</tr>
<tr>
<td>Business 2011/12 (1,700) vs. Business 2009/2010 (439)</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Ipsos MORI

For example, if 10% of the overall sample give a particular answer compared with 13% of businesses, the chances are 95 in 100 times that this 3 percentage point difference is significant (i.e. greater than or equal to 2 points), which could not have happened by chance.
6.5 Appendix 5 - Adaptation action scale

Both the 2009/10 and the 2010/11 surveys asked respondents to pick between a range of seven different statements relating to how much their business/organisation has thought about the kinds of risks or opportunities a changing climate could present.

The statements are designed to rank the extent to which businesses/organisations have considered climate risks/opportunities, made it a part of their planning process or taken adaptation action. Where the report refers to the higher or lower scale of adaptation action, this is based on the response to these statements, listed below:

- We haven't thought at all about climate change, and don't plan to
- We haven't thought about it, but plan to in the future
- We have begun looking at it, but are just getting started
- We have looked at present and future threats and opportunities and thought about what to do about them
- We have looked at present and future threats and opportunities, identified priorities, and have started acting on these.
- We have comprehensively assessed current and future threats and opportunities, and have fully planned actions, are taking action on priorities and made this part of the way we plan generally
- We have comprehensively assessed present and future threats and opportunities, have fully planned and taken action, made it part of how we plan and systematically monitor and implement our actions.

Low end

High end
6.6 Appendix 6 - Glossary of terms

A number of different terms are used throughout this report in relation to climate change and adaptation. For clarity, and to aid the reader, definitions are provided below for some of the most commonly used terms within this report. However it should be noted that none of these definitions were provided to survey respondents.

**Adaptation**: The adjustment in natural or human systems (e.g. urban areas) in response to actual or expected climatic stimuli or their effects. This can be both moderating the potential negative consequences of climate change, and exploiting beneficial opportunities from climate change. It is defined against mitigation, which in the context of environmental research refers to preventative measures to prevent climate change (such as recycling, or limiting energy use).

**Adaptive capacity**: This refers to the potential of a system to design and implement effective adaptation strategies to adjust to information about potential or actual climate change (including climate variability and extremes), to moderate potential damages, to take advantage of opportunities, or to cope with the consequences.

**Impact** (here: climate impact): The effect of a climate hazard. For example, heatwaves can cause impacts on urban air quality, human health, energy use, function of transportation, etc. Impacts can be positive or negative, and the size of the impact experienced depends upon the system’s exposure to that hazard, and its sensitivity.