

Facing the challenge of severe weather and climate change

Responses from Marks and Spencer plc are based on a 3-part, UK-wide, retail property study undertaken to better understand

- i) the business case for adapting to climate change,*
- ii) a strategy for implementing adaptation measures and*
- iii) the climate change impacts on the construction supply chain.*

Climate change and severe weather:

1. What do climate change projections tell us about the likely increase or decrease in different weather risks in coming decades (by 2050 to 2100 depending on available data)?

Average annual UK temperatures are 1°C higher than they were in the 1970's and a trend towards drier summers and more frequent heat waves, wetter winters with heavier rainfall events and rising sea levels is predicted. The impacts of global warming will be experienced on a regional and local level in diverse ways. By the end of the century we can expect the average yearly temperature of the UK to be between 1°C and 4.5°C hotter than today, depending on the levels of future greenhouse gas emissions. The following general trends in climate are expected:

- increased climatic variability
- rising temperatures
- increasing risk of heat waves
- warmer, drier summers
- milder, wetter winters
- changing patterns of rainfall with more intense rainfall events
- increasing risk of drought and floods
- sea-level rise and coastal erosion
- increased frequency and severity of sea storm surges
- possible increase storm intensity and frequency, including lightning.

M&S's study looked up to 2050 in terms of climate change projections.

2. Has the consensus about likely changes in the risks of severe weather changed in recent years (compared to the evidence base used to draw up the Climate Change Adaptation Strategy)?

From M&S's perspective the prognosis remains the same in terms of mid to long-term climate risk. However, in light of the very recent flood experience the perceived risk of water management has certainly risen up the agenda with business continuity teams now aggressively working to better manage this going forward.

3. What are the risks of severe weather? For different hazards, how many people are at risk, of what effects, at what risk level? For example, the Environment Committee has recently investigated risks of flooding from storms at various likelihoods – are there similar figures for other weather risks such as heatwaves, droughts, snow or cold snaps?

M&S has looked into severe weather risks, specifically from a retail perspective and with a focus on flood, drought and heat. We have looked at the risk profiles of various scenarios such as staff and customer health and comfort, food hygiene and failure of heating and cooling equipment and proposed remedial actions which have been plotted on a risk matrix.

Adaptations:

4. How is London adapting to lessen or cope with the effects of severe weather and climate change? Are London's adaptations focussed on the greatest threats?

5. Is London ready to adjust its adaptations to cope with future weather changes?

6. What could be the costs and benefits of different adaptation approaches?

M&S is unable to comment specifically on how London as a region is managing climate risk, but as part of M&S's climate change adaptation study we undertook a more detailed analysis of our flagship store, Marble Arch, in terms of risk and coping strategies. The biggest risk to the store as we head towards 2050 is energy / heat management.

Economic impact:

7. How can London map its dependence on global supply chains that are at risk from climate change effects and severe weather overseas?

By firstly understanding what are London's biggest dependencies and which of those are imported or exported. Then understanding the climate impacts from those imported or exported regions. M&S has conducted a similar exercise specifically in relation to the impact of climate change on construction materials.

8. What advice and information is available to London businesses about how they should respond to climate change and severe weather events? To what extent do firms use these services?

M&S has used tools from Climate Ready, UKCIP and the Environment Agency.

9. To what extent businesses in London have adaptation or continuity plans in place?

As part of M&S's sustainability strategy, Plan A, we have two Plan A commitments related to managing climate risk:-

- 1) By 2015, we will review possible adaptations to climate change at our top 50 UK stores. We will then develop a plan in collaboration with our landlords to agree which adaptations will be implemented by 2020.
- 2) From 2015 all store development investment in excess of £10m will be assessed against future building climate change risk mitigation by the Property Board.

M&S currently has an adaptation strategy and is now working to integrate specific actions into existing processes ranging from planned, preventative maintenance regimes, retrofit specifications of M&E equipment, up-skilling of relevant staff and tabling climate change risks at relevant high-level property decision making meetings.

Our business continuity team have been and continue to pro-actively address flood risk and adverse weather risk and are currently engaged with the EA to support their flood awareness campaign which launches in November '14.

10. Are there specific challenges for Small and Medium-Sized Enterprises (SMEs)? How can these be addressed?

Top of the list of challenges for SME's are likely to be the lack of resources to be proactive rather than reactive which makes SME's more vulnerable to climate change risk than larger organisations.

Mayor's role:

11. What specific steps can the Mayor, GLA, TfL, London Enterprise Panel and other Mayoral bodies take to ensure London and its economy is prepared for and can adapt to the impacts of severe weather and climate change?

Work together. There's little point in an M&S store being a lonely island of climate resilience. The Mayor is in a unique position to facilitate collaborative working and bring others on board to help create climate resilient cities. Understand the greatest risks and opportunities and agree ways of mitigating or capitalising them. These should be continually reviewed in light of new data, evidence and experience. Learn lessons from other large cities in different climates.