



CASE STUDY

Climate adaptation and resilience: the poor cousin to the race to net-zero?

Introduction

The overwhelming majority of climate change initiatives identified by businesses are focussed on reducing emissions and meeting net-zero targets. Businesses also need to ensure that they adapt to remain resilient to the physical changes in the climate and associated weather

hazards such as heatwaves, flooding and storms. However, only 13% of businesses surveyed, identify that physical risks associated with the increased severity of natural disasters is a priority driver for their organisation in addressing climate change. Even fewer,

just 2%, identify specific climate adaptation focussed projects within their top-three initiatives to help them tackle climate change. So why aren't more businesses focusing on resilience and climate adaptation and does this matter?

Key messages

Climate adaptation is critical because we are already locked into some warming and the impacts on business are happening here and now.

Adaptation appears to be under prioritised, reflecting stakeholder pressure to focus on reducing emissions, the difficulty in quantifying progress on adaptation, and a perhaps a (unnecessary) perception that any return on investment in adaptation will only be realised beyond business planning horizons.

Notwithstanding, there are some good examples of adaptation particularly in the utilities sector.

Finance companies, both capital markets and insurers, are key to driving companies to quantify and act on risk, and standardise how this is done.

In many cases there is a sweet spot in identifying initiatives that both reduce carbon emissions and at the same time help an organisation to be more resilient and adapt to future climate change.

There may also be ways to increase the long-term climate resilience of a business whilst delivering near immediate benefits such as cost savings, or service improvements.

01 Why is climate adaptation important?

The IPCC 6th Assessment Report is the first to state that human influence on warming of the atmosphere, ocean and land is unequivocal. It records that global average temperatures have risen by approximately 1°C since pre-industrial times. Critically, the report also highlights that the gap between how prepared we are for changes in the climate and how prepared we need to be has increased over the five-year period, since the publication of the previous report.

The chances of global average temperatures temporarily exceeding 1.5°C over the next five years are approximately 40%, according to another recent scientific study. This is important as the target of limiting global average temperature rise to 1.5°C above pre-industrial levels, was set within the Paris Agreement in 2015 as a means of avoiding the worst impacts of climate

change. Any actions that we take now to reduce emissions, or remove greenhouse gases from the atmosphere, will take decades to have a significant impact on global temperatures. Other studies following extreme weather events, such as heatwaves, floods and storms, also identify that the increased frequency and heightened intensity of these events can often be attributed to climate change.

Businesses are impacted by the physical changes to the climate in a number of ways. Firstly, their infrastructure and operations may be directly affected by more extreme weather. This could include flooding of warehouses, or heat stress risks resulting in reduced productivity from outdoor workers. Supply chains may also be impacted. For example, supply of specific crops from some parts of the world could become untenable

due to drought or extreme heat. Businesses may also be impacted by changes to customer behaviour. Fashion retail is already extremely sensitive to weather shocks in the early parts of each season; and the attractiveness of tourist destinations may change with some becoming unbearably hot during the height of summer, with others becoming more pleasant.

The evidence is clear, we are already locked into some warming and changes to our climate, the effects of this we can already see now, both in terms of global average temperatures and also extreme weather events. Whilst reducing emissions is incredibly important, the need for adaptation is also urgent, to make sure that businesses remain sustainable through the transition period and resilient for the future climate.

02 How are businesses adapting to climate change?

Physical risks to infrastructure and business operations is identified by respondents as a critical area of focus for climate adaptation. The UK utilities sector has for many years considered adaptation and resilience to future climate conditions to be as important as carbon reduction activities. This is driven by the sensitivity of water and energy supply and demand to weather conditions; the vulnerability of large-scale assets to extreme weather events; as well as the regulatory framework within which the sector operates.

Climate change has been identified for a number of years as a key risk facing the business, which has driven engagement with climate change commitments and initiatives both internally and externally. We believe that it is crucial to talk about adaptation to climate change as well as the steps taken to mitigate the impact of climate change. As part of our contribution to this debate, we publish a climate change adaptation report every four years where we outline how we are embedding adaptation across the business.

Anglian Water (Energy, Resources & Utilities)

One key risk for companies such as Anglian Water who manage large infrastructure is flooding of assets. This requires new and innovative solutions for how storm water is managed, especially in urban areas. These are designed to enhance resilience of assets, and require a holistic and multidisciplinary approach to deliver solutions

We have a large team of hydrologists, geologists and environmentalists focusing on developing innovative holistic tools for forecasting and visualising data to understand local rainfall/runoff, water levels, flooding and flood diversion, erosion, landslide- and flood insurance in the urban landscape. Freshwater ecology and biodiversity are also considered.

Anglian Water (Energy, Resources & Utilities)

We support our customers to adapt their infrastructure to be more resilient to climate change. The company is participating in a Norwegian Government research funded programme, "Klima 2050", to reduce societal risks associated with climate change, increased flood risk and the built environment. Through this initiative, we're helping pull together academic, public sector and industry knowledge to solve challenges associated with increasing flood risk in urban environments.

Multiconsult (General Services)

Resilience of supply chains is also an important factor. Johnston's of Elgin manufacture cashmere clothing. Sustainability is at the heart of the company's values and 5-years ago they helped to set up the Sustainable Fibre Alliance. This aims to restore the Mongolian

grasslands that are damaged from overgrazing and the impacts of climate change that are already being experienced. These include higher temperatures and changes to rainfall patterns. Already a semi-arid environment, the grasslands are at risk from desertification. As well as restore the grasslands, the initiative also aims to ensure the well-being of the goats that are used to produce cashmere and secure herders' livelihoods.

Securing the long-term future of the grasslands by making them self-regenerative will have a positive impact on the Mongolian herder community, our supply-chain and the wider ecosystem. Our customers include certain fashion brands who are looking for suppliers who can support them in delivering on their own sustainability pledges.

Johnstons of Elgin (Consumer Goods)

Changes to consumer behavior is another important consideration for businesses to incorporate into adaptation planning. For example, a report in the aviation sector highlights how the seasonal attractiveness of holiday destinations may change. Higher temperatures will likely contribute to the attractiveness of longer shoulder seasons for destinations across Europe. This presents an opportunity for the tourism sector to extend the season. Changes to climate are also expected to change patterns of demand for electricity, with a decrease in demand for winter heating and conversely an increase in demand for summer cooling. The extent to which this will be an impact on the resilience of the sector depends greatly on how the sector decarbonises.





03 What is the role of the finance sector?

The finance and insurance sector has an important role to play in incentivising businesses towards transition to a low carbon future. It is also important for investors that their investments remain resilient to weather hazards. Initiatives such as the Task Force on Climate Related Financial Disclosures (TCFD) are increasingly being adopted as a mechanism for businesses to report on climate-related risks as part of the annual financial reporting cycle. But whilst regulation and reporting requirements are important and create transparency they are not the primary catalysts for the way the finance sector has set targets and is designing transition.

Pressure starts with the recognition of risk to our book from climate change, risk to our stakeholders, and risk to society and whilst this is critical, there's also a strong belief that we can create shared value with our customers by addressing climate change.

NatWest Group (Financial Services)

Using all investment tools at our disposal – divestment, investment in solutions, and company engagement – we are able to: make investment decisions in line with scientific consensus; increase capital flows towards low-carbon, climate-resilient, and transition companies; avoid investments that contribute heavily to climate change; and, use our ownership position to stimulate ambitious climate practices at portfolio companies. We will do this this by performing climate risk assessments and monitoring, using ratings, research and adaptation metrics as a foundation for our investment rationale.

Storebrand (Financial Services)

04 Why aren't more businesses focusing on climate adaptation?

Businesses cite several reasons why adaptation hasn't received the impetus that carbon reduction has in recent years. Government, customer and investor pressure has driven a focus on reducing emissions to avoid the worst impacts of climate change. Thinking about adaptation at the same time takes focus away from this challenge, and may in extremis lead to businesses simply focusing on trying to protect themselves from a worst case scenario. At the same time, adaptation is less easy for businesses to measure than carbon reductions and there is no clear index that helps them to indicate that they have invested sufficiently in adaptation measures.

Utilities companies like Anglian Water are incentivised by regulation to think about these

long-term issues, but this is usually not the case in most other sectors.

There is also sometimes a perception that the benefits of investing in adaptation may only be realised on timescales beyond normal business planning horizons. Broadly speaking businesses are responsive to financial drivers as well as customer and stakeholder pressure rather than proactive in tackling future risks head on.

Our overall driver is that there is a commercial and business need, rather than it just being a tick box exercise with respect to ESG. More specifically, the driver behind change is physical change: as soon as things translate into a commercial impact, action is taken in order to address the issue. For example, a number of factories

had to be closed in America and Australia as a result of the extreme cold weather and the bushfires.

Associated British Foods (Consumer Goods)

This when linked to demand-side influence and drivers, where customer pressure is growing to act on climate, this further complicates the need to focus and assign already competing resources towards adaptation versus net zero activity.

There is a sense of frustration within the industry that customer demand has not changed enough, and therefore, until the demand profile changes there is little incentive to invest merely out of the sense of doing the right thing.

Associated British Foods (Consumer Goods)

05 Finding the sweet spots

A 'sweet spot' can often be found in identifying initiatives that both reduce carbon emissions and at the same time help an organisation to be more resilient and adapt to future climate change.

Many participants in the Goal 13 Impact Platform highlight initiatives that are predominantly focused on reducing emissions, but at the same time also help to make them more resilient to future weather conditions. Nature Based Solutions are one way that businesses are able to hit this sweet spot. Initiatives such as tree planting, peat restoration

or regenerative farming help to sequester carbon. At the same time these initiatives may also reduce flood risk, increase storage of water, or help to provide a cooler local environment during periods of heatwave, all ways that help to build resilience to weather extremes.

Food manufacturer Ecotone is one company that employs regenerative organic farming practices. Expert soil management results in higher levels of CO2 being taken up in the soil. At the same time, ensuring that the soil is in good

health is increasing the long-term climate resilience of farming practices.

By 2025, we're looking to have built stronger, more sustainable supply chains from farm to customers for our top 4 organic raw materials (oat, almonds, tea and cocoa). By following regenerative farming practices, the land is more resilient and nutrient-rich, which yields a better crop and appeals to the more climate-conscious consumers.

Ecotone (Consumer Goods)

Similarly, many businesses are investing in renewable energy and storage. This helps them to reduce their carbon emissions and at the same time increase their resilience by reducing reliance on the energy grid.

There is another type of sweet spot where businesses are able to adopt strategies that will help to build long term resilience whilst at the same time delivering short term benefits such as cost savings, or service improvements. For example, Openreach identifies that replacement of copper cables with a full-fibre system gives their customers a much-

improved broadband service. At the same time, full fibre is much lower energy, so it reduces emissions and requires much less maintenance. In particular, it reduces vulnerability to localised flooding which often disrupts wired communications systems and is becoming more prolific as a result of climate change.

By incorporating consideration of climate adaptation and resilience into corporate strategy, risk assessment and procurement decision making businesses are able to build the adaptive capacity of their organisation whilst realising near immediate benefits.

Companies need to embed climate change and sustainability issues into their internal enterprise risk assessment programmes and risk profiles. This is key in helping to bring sustainability risks and challenges to life for a business.

Coca-Cola European Partners (Consumer Goods)

There are many more opportunities for businesses to find these sweet spots and begin to address both sides of the climate challenge as they move forward on their transition and adaptation journeys.

Met Office

The Met Office is the UK's National Weather Service and is also an internationally recognised centre for climate change prediction. Underpinning our capabilities is a deep expertise of weather and climate science. Met Office model data and expertise feeds into global understanding on climate through processes such as the Intergovernmental Panel on Climate Change (IPCC). We also work closely with

UK government to provide science and advice that informs adaptation and mitigation policy.

Our climate science is used by businesses to understand how the changing patterns of weather will impact their infrastructure, operations, supply chains and customers. We provide expert advice to help organisations to apply our data in the best possible ways to support risk assessment and adaptation

planning. We also help customers to use day to day weather information to inform business decision making. This is another sweet spot: customers realise immediate benefits from optimising their decisions in response to today's weather conditions; and at the same time build their adaptive capacity and awareness of potential impacts of future climate change.

To find out more visit:

<https://www.metoffice.gov.uk/services/research-consulting/weather-climate-consultancy>