

# Physical Risk and Board Accountability in the UK: *The Cost of Inaction*

→ Briefing note for Board Directors



## Key takeaways

- **The impact and probability of acute** (e.g. severe storms, floods and wildfires), **chronic risks** (e.g. increased temperature, reduced water availability) or **nature loss** (e.g. pests/disease) **having material direct and indirect impacts on business is increasing due to climate change and nature degradation**. Extreme weather events and chronic physical changes are intensifying globally, driving economic losses to \$320 billion in 2024 — up from \$268 billion in 2023.
- Physical risks can **drive financial risks** and affect performance, valuation, insurability and cost of capital, and that can translate to cash-flow volatility and balance sheet strain (e.g. latest research indicates that premiums for physical risk and natural catastrophe protections are forecasted to rise 50% in the next four years).
- **UK law requires directors to act on financially material risks**, and this fiduciary imperative is stipulated in the Companies Act 2006. Overlooking these increasingly foreseeable and financially material risks can lead to legal exposure, at both an entity-level and personal liability for directors, while robust oversight can safeguard enterprise value.
- Directors can **identify, integrate and disclose** physical risk. Boards that systematically manage physical risk are rewarded by markets.

## Physical risk is now a boardroom consideration

Physical risk is no longer hypothetical or distant; it is increasing in both frequency and severity, and it is financially material. Latest research indicates that premiums for physical risk and natural catastrophe protection are forecasted to rise 50% in the next four years.<sup>1</sup> This means that physical risk is central to a company's risk and resilience agenda, rather than being a peripheral concern.

*“Executive teams need to convince their boards and shareholders that they thoroughly assess material risks and integrate resilience into their strategic plans. Vulnerabilities often stem from the activities and practices of direct and indirect value chain partners, making continuous engagement, education, and monitoring essential to prevent costly disruptions and reputational damage.”*

— Chrysoula Zervoudakis, Director at BlackRock Income and Growth Investment Trust; Independent Non-Executive Director, Chair of the Ethics and Governance Committee, Ofi Invest Asset Management



*“Investors and banks have sharpened their focus on physical climate risk. They increasingly expect good data and disclosures from companies as a precursor to investment or lending decisions. Companies that proactively identify these risks, clearly disclose them, and are able to put in place effective adaptation plans to mitigate these risks, will have a competitive advantage. For some sectors in particular, physical climate risk is viewed as financially material, and is a core investment consideration in portfolio construction and asset selection. Investors are increasingly engaging with companies on this topic, with plenty of real world examples to point to. As this topic continues to rise up the investor agenda, so too should NEDs make sure it’s on the board agenda.”*

— Alexandra Innes, Chapter Zero Fellow; Board Member, W1M Wealth Management; Non-executive Committee Member, Bank of England; Senior Independent Director, STS Global Income & Growth Trust; Non-Executive Director, Schroder Real Estate Investment Trust Ltd; Global Advisory Board, Cambridge Institute for Sustainability Leadership

**Physical risks from the changing environment are challenging existing capabilities and ways of working within corporations and across value chains.** As the impact and probability of both acute and chronic risks rapidly increase, especially across value chains, physical risks are becoming a core driver of performance, valuation, and cost of capital. [Flooding](#)<sup>2</sup>, [storms](#)<sup>3</sup>, [water scarcity](#)<sup>4</sup> and [wildfires](#)<sup>5</sup> are already disrupting operations, supply chains and customers. In the UK, heatwaves are now predicted to be 30 times more likely due to climate change<sup>6</sup>. These events affect productivity, downtime, input costs, asset values and insurance availability. Markets are increasingly pricing resilience: lenders, insurers and investors are starting to interrogate exposure and adaptation plans, and insurance terms are becoming more stringent in high-exposure locations.

WBCSD’s [Getting Ahead of Physical Risk](#) executive brief presents several case studies of where extreme events and chronic environmental shifts have caused immediate and systemic threats to operational continuity and financial performance of businesses across sectors and geographies.

#### Why Directors can’t ignore this

With the impact and probability of physical risk increasing, so too does the likelihood that the associated impacts are already translating into cash flow volatility and balance sheet strain. The ensuing increased liability profile and reputational risks can quickly materialize and compound if unaddressed.

- Severe weather can idle sites, reduce productivity and drive capex and opex spikes for asset hardening, relocation or business continuity.
- Logistics face chokepoints from floods, heat and storms, exposing just-in-time fragility and input price volatility.
- Insurance pressures show up as coverage limits, exclusions, premium hikes and deductibles, which feed through to financing terms and covenants.
- Customers and counterparties expect continuity.
- Service interruption, service level agreement (SLA) breaches and safety incidents damage trust and revenue.

In the UK, over a third of railways and roadways are vulnerable to flood risk; this figure is predicted to rise to half by 2050<sup>7</sup> with clear implications for logistics across the value chain. Additionally, workforce heat stress and duty of care obligations add operational constraints and potential liability — a 2025 report by the World Health Organization estimates that for every one degree above 20°,<sup>8</sup> worker productivity drops by 2-3%.

### From flooded supplier to falling shares:

→ how a physical impact rippled through the value chain of a leading car manufacturer



*Key supplier* was hit by a flood that forced shutdown for a few weeks



*Production disruption* affected multiple production lines

→ Estimated shortfall of **>10% vehicles** vs previous half-year



*Sales loss* led to revised revenue and profit annual public guidance

→ Announced ca. **€2B in revenue loss and 2% profit margin reduction**



*Bottom-line impact:* Immediately following the announcement, **company's shares fell more than 5%**, a drop not aligned with broader market and industry trends

### What the science says:

→ The probability of experiencing severe floods is today 36% higher than in 1990, contributing to USD 74.1 billion in annual infrastructure losses and a total of USD 388 billion when indirect and systemic impacts are included.

→ Yet most manufacturing sites — especially SMEs — remain unprotected by flood-resilient measures like elevation or barriers, leaving them highly vulnerable to costly, prolonged shutdowns.

### UK law provides a fiduciary imperative

**UK law leaves no room for manoeuvre: directors must act decisively.** According to Section 172 of the Companies Act 2006, directors are legally required to promote the success of the company for the benefit of its members. This duty requires attention not just to short-term profit, but also to the long-term consequences, including relationships with employees, suppliers, customers, the community, and the environment. Section 174 further stipulates that directors must exercise reasonable care, skill, and diligence, as measured both objectively (i.e. what any competent director would do) and subjectively (i.e. what the director's own qualifications justify). The UK Corporate Governance Code is a framework for London Stock Exchange listed companies that require boards to conduct rigorous assessments of emerging and principal risks, maintain effective internal controls, and perform regular viability testing.

With the publication of the UK Government's Sustainability Reporting Standards in February 2026, there is an increasing focus on companies disclosing "material information about the sustainability related risks and opportunities that could reasonably be expected to affect the entity's prospects." While these new standards remain voluntary, the Financial Conduct Authority (FCA) is consulting in Spring 2026 on mandatory reporting in line with the UK SRS for certain listed entities.

The Prudential Regulation Authority, in December 2025, issued a new policy statement and supervisory statement (PS25/25<sup>9</sup> and SS25/25<sup>10</sup> respectively), increasing expectations for regulated financial firms and their management of climate-related risks. Corporate directors should expect that these policies will inform further scrutiny across lending and insurance portfolios.

Furthermore, interactions between these risks and officeholder duties are increasingly dealt with in UK courts. In *ClientEarth v Shell Plc & Ors*,<sup>11</sup> ClientEarth, as a shareholder, brought a claim against Shell's directors, alleging that they had breached their fiduciary duties due to the acts and omissions of the directors related to its climate change risk management strategy. In *McGaughey v Universities Superannuation Scheme Limited*,<sup>12</sup> individuals with pensions administered by the University Superannuation Scheme brought a claim seeking to continue proceedings against the directors of the scheme, alleging that continued investment in fossil fuels violated the ambition to be carbon neutral by 2050.

While both those cases resulted in outcomes not leading to officeholder liability, it is highly likely that there will be further development of these case theories in future actions, based on different sets of facts.

# Managing physical risks has consequences for value protection and creation

**Overlooking material physical risks can lead to legal exposure** and scrutiny of how directors fulfill their duties. While climate-related director liability case law is developing, established principles on directors' duties demonstrate that directors must be properly informed about material risks and ensure that adequate controls are in place.

Trouble typically arises when internal awareness diverges from external disclosures or when weak risk controls allow preventable disruptions to erode value. Stakeholders can and will seek accountability.

## Inconsistency

Where a company's internal documents show awareness of physical climate risks but public disclosures minimize or omit them, this creates potential exposure.

## Inadequate controls

Similarly, when companies suffer major losses from foreseeable weather events that could have been mitigated through reasonable measures, questions may arise about whether directors exercised proper care.

## Repercussions

Stakeholders can seek accountability through derivative actions and, in extreme cases, wrongful trading provisions.

On the flip side, **robust oversight** of physical risk does more than satisfy regulatory demands: it can **safeguard enterprise value, enhance access to finance and insurance**, and meet the evolving governance expectations of investors, regulators, and society.

## *Is there a commercial payoff?*

**Boards that demonstrate systematic management of physical risk signal resilience and are rewarded.** Analysis<sup>13</sup> suggests that markets are pricing physical risk, as firms with higher physical risk exposure face an increase of 22 basis points in their Weighted Average Cost of Capital (WACC). Signaling resilience can support valuation, broaden financing options, improve insurance outcomes, and build stakeholder trust.

**Treating physical risk as core governance can therefore be good business, not just compliance.**

## *Collaboration is needed*

**No single business can manage these challenges alone.** Collaboration is needed across both the private and public sectors. Directors are uniquely positioned to mobilize engagement with peers and wider stakeholders, including with public sector and government stakeholders. Such leadership can help advance a systemic, coordinated response to physical risks through resilience planning and enabling policies — a response that will drive resilience in support of long-term value creation.

## What can boards do now?

There are several actions directors, including non-executive directors (NEDs), can take to manage physical risk.

### Mobilize:

- Establish the organizational foundations needed to identify, integrate, and disclose physical risks, including those recommended in [WBCSD's CEO Handbook on Executive Engagement](#).
- Activate relevant internal and value chain stakeholders to build capacity and shape an organizational response.

## What to ask the executive team: Do we have and leverage the right internal and external capabilities to secure our analysis and develop our resilience strategy?

### Identify:

- Commission a rapid exposure scan across assets, operations and key suppliers using decision-useful scenarios and time horizons. This should extend beyond individual assets, operations, and key suppliers to include key geographies and regional interdependencies.
- Consider network effects across markets, logistics corridors, and critical hubs where physical risk impacts could cascade across the value chain within the rapid exposure scan.
- Incorporate geographic concentration risks, cross-border dependencies and systemic disruptions into stress-testing strategy and budget assumptions against extreme weather scenarios, going beyond site-level impacts.
- NEDs should challenge assumptions in scenario analysis and stress testing.

## What to ask the executive team: Do we know which nodes of our value chains are most critical for business continuity if physical events were to impact them?

### Integrate:

- Embed physical risk into board governance, management responsibilities and performance frameworks (e.g. KPIs and thresholds).
- Establish clear Audit and Risk Committee ownership through the principal risk register and resilience agenda.
- Integrate insights into internal controls, site strategy, capex planning and insurance.
- Identify and solve current and evolving gaps in capacity and capabilities and schedule periodic board reviews and escalation triggers.
- NEDs should satisfy themselves that the board receives decision-useful information on physical risks and that management accountability is clear.

## What to ask the executive team: Is physical risk integrated into our business operations and ERM, and how does this influence core planning?

### Disclose:

- Review current accounting policies and corporate reporting governance to include physical risk disclosures alongside existing and anticipated reporting requirements in line with investor (and broader financing) expectations.

### Additional Questions for Board and Executive Discussion

- Are we clear on the full range of physical risks that could have a material impact on our operations, assets and supply chains?
- Have we conducted scenario analysis and stress testing across near-, medium- and long-term time horizons to understand the likely impacts of these risks?
- Do our governance structures – Audit and Risk Committee, principal risk register, internal controls – appropriately reflect physical risks?
- Does management have sufficient expertise? Do board members have adequate literacy?
- How does our approach compare to peers?
- Do we have the data and tools needed to track physical risk hotspots and improve our sourcing or investment decisions?

# Endnotes

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- 12 [McGaughey v Universities Superannuation Scheme Limited \[2023\] EWCA Civ 873](#)
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# Acknowledgements

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## About CMS

**CMS** is a Future Facing law firm that offers full-service legal and tax advice. With more than 90 offices in over 50 countries and more than 7,200 lawyers worldwide, CMS combines deep local market understanding with a global overview, giving us the ability not only to see what's coming but to shape it.

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The international ESG Task Force within CMS is a cross-practice and cross-sector group of experts who actively advise on all areas of sustainability. Thanks to our integrated, multidisciplinary approach, we can anticipate the rapidly evolving ESG landscape and identify risks and opportunities. Our teams of lawyers around the world develop innovative solutions that enable clients to keep one step ahead of emerging ESG regulations and stakeholder expectations.

## About Chapter Zero

**Chapter Zero**, the philanthropically funded Directors' Climate Forum, is one of the founding Chapters of the Chapter Zero Alliance – a global network of 35 Chapters in 70+ countries. Its purpose is to equip and inspire Chairs and NEDs to lead on climate from the boardroom.

Chapter Zero operates from a UK base with a global impact. As an incubator of best practice, toolkits and thought leadership that are disseminated around the world, Chapter Zero delivers briefings and masterclasses for its vibrant peer-to-peer community. Our programmes bring the latest thinking and practical experiences of board oversight and governance for the climate transition.

With over 3,600 members, Chapter Zero is represented on the boards of 82% of FTSE 100 and 68% of FTSE 250, a large proportion of the UK's private companies as well as representation from government, arms' lengths bodies and civil society boards.

## About WBCSD

The World Business Council for Sustainable Development (WBCSD) is the leading community of around 230 global businesses making sustainability performance a key driver for competitiveness. Established in 1995, WBCSD is a non-profit member-led organization that connects business leaders through all sectors and major economies, and creates the tools and frameworks to scale collective impact, drive cross-sector innovation, and shape an ambitious, enabling policy agenda. We operate from seven offices worldwide — in Geneva, New York, Chicago, Amsterdam, London, Singapore and Wuhan — enabling collaboration across value chains and geographies. Together with our members, we are rewiring economic and financial systems to support the transition to a net-zero, nature-positive, and inclusive future that creates business value.

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