



Business Guide to Climate Disputes



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Foreword

Ambition on global efforts to address climate change was elevated at COP 26 in Glasgow. All state parties to the Paris Agreement have agreed to revisit and strengthen their current emissions reductions targets to 2030 (Nationally Determined Contributions) in 2022, which will be reviewed at a yearly ministerial roundtable on pre-2030 ambition starting at COP27 next year. The 'Paris Rulebook' was completed after six years of discussions, with important agreement on rules governing the international trade of emission reduction units under Article 6 of the Paris Agreement. In parallel to the official proceedings a raft of pledges were made on important topics such as phasing down out and reducing methane emissions, halting deforestation, US-China cooperation, zero emissions new car sales by 2040 (or earlier) and net-zero pledges from the financial services sector. However, ambition without action is meaningless and attention will now need to turn to implementation, monitoring, reporting and accountability.

Monitoring and accountability of corporate and government efforts to address climate change continues to drive an exponential increase in climate disputes. Traditionally, climate disputes have focused on litigation against governments and public authorities that seeks to push climate-positive policy objectives, for example, implementing domestic policies to reduce GHG emissions, or challenge climate-damaging public decisions like planning permission for large scale infrastructure projects in high emitting sectors. In recent years, litigation and wider non-judicial complaints against corporates have been increasing. While attention is often focused on "Carbon Majors" and decision making in energy-intensive sectors, wider business activities and industry sectors are now starting to see an increase in litigation, regulatory enforcement action and wider complaints, for example, to OECD National Contact Points and UN bodies. This trend will only increase as physical and transition risks increase.¹

Climate science confirms that the physical risks associated with climate change are set to increase and certain physical impacts are already locked in.

In early August 2021, 'AR6 Climate Change 2021: The Physical Science Basis'² (IPCC Report), the first instalment of the sixth assessment report was published by Working Group I of the Intergovernmental Panel on Climate Change. It opens with 'it is unequivocal that human influence has warmed the atmosphere, ocean and land',³ and in its consideration of several possible climate futures, it states that under all scenarios 'global surface temperature will continue to increase until at least the mid-century' and 'many changes in the climate system become larger in direct relation to increasing global warming', including heatwaves, drought, cycles and reductions in Arctic snow and permafrost.⁴ Even with the 'deep reductions in CO₂ and other greenhouse gas emissions' required to keep global warming within the range of 1.5°C to 2°C contemplated by the Paris Agreement,⁵ we should expect the effects of climate change to become increasingly disruptive for at least the next 20 years.

The 2021 IPCC Report, bolder than the previous assessment report published in 2014, underscores advances in both the physical science and the strength of agreement between the world's scientists regarding human-induced climate change in the intervening period. It also underlines the reality that the coming decades will see significant shifts in economic activities as a result of the crystallisation of physical risks and ratcheting up of transition risks (policy, legal, market and technology changes) to meet increasing commitments and ambition. Given the links between protecting biodiversity and nature-based solutions to address climate change, if agreement is reached on a global Paris-like agreement for biodiversity at the UN Biodiversity Conference (COP15) in 2022, the scale and pace of change required will be even greater.

¹ The final recommendations of the Task Force on Climate-related Financial Disclosures – the leading global framework for climate related financial disclosure, increasingly incorporated into corporate disclosure laws in a number of jurisdictions – divide climate-related risks into two principal categories: 'physical risks', being the direct physical impacts of climate change both acute and chronic, and 'transition risks', being impacts arising from 'policy, legal, technology and market changes' in response to those direct physical impacts. Task Force on Climate-Related Financial Disclosures (2017), Final Report Recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD Recommendations), pp. 5-6.

² Intergovernmental Panel on Climate Change (2021), 'Summary for Policymakers' in Climate Change 2021 The Physical Science Basis (IPCC Report), Cambridge University Press: Cambridge, p. SPM-5.

³ IPCC Report 2021, pp. SPM-18-SPM-19.

⁴ IPCC Report 2021, pp. SPM-17-SPM-18.

⁵ IPCC Report 2022, pp. SPM-11-SPM-13

The IPCC's Working Group II has also now (February 2022) published a report, entitled "*Climate Change 2022: Impacts, Adaptation and Vulnerability*". In a long and detailed report, backed by vast amounts of data points in which there is ever increasing confidence, its most striking feature is the scale of vulnerability of the world's ecosystems and people to the impact of climate change. By way of illustration it notes that 3.3bn to 3.6bn people (i.e. 40%+ of the world's population) live in contexts which are "*highly vulnerable to climate change*" 5. Worse still, the report notes that "[c]urrent unsustainable development patterns are increasing exposure of ecosystems and people to climate hazards". These comments are a stark reminder of the enormity of the threat posed, that the threat is of human as well as environmental tragedy of unparalleled scale, and that urgent action must be taken to address a problem which human behaviour continues to make worse.

The February 2022 IPCC report is clear that significant action, going beyond many of the targets focused by governments and major corporates will be required: "*Near-term actions that limit global warming to close to 1.5C would substantially reduce projected losses and damages related to climate change in human systems and ecosystems, compared to higher warming levels, but cannot eliminate them all,*" In a message to both the global business community and governments alike it also recognises that what is required is "[i]ntegrated, multi-sectoral solutions that address social inequities, differentiate responses based on climate risk and cut across systems [in order to] increase the feasibility and effectiveness of adaptation in multiple scenarios".

For business then, in addition to decarbonizing operations and value chains to contribute to the long term response to climate change and avoid worst case climate scenarios, adapting to the risks and opportunities arising from climate change is critical to navigating the next two decades. For many businesses, this will mean considering the risk of climate disputes

as strategic advocacy becomes more sophisticated, the value of loss and damage arising from climate change increases and systemic legal and policy shifts materialise.

This guide is intended to support businesses in analyzing and incorporating climate risks into their strategy and risk management, by exploring the themes which arise from that litigation risk, and the types of disputes that can be expected to arise with increasing frequency.

Climate change has different impacts on different sectors. Accordingly, our guide is organized across nine sectors – Energy & Natural Resources; Infrastructure, Construction & Transport; Industrials; Insurance; Consumer Goods, Food & Retail; Life Sciences; Real Estate; Media, Sport & Entertainment; and Technology – and includes insight from sector experts across DLA Piper's international offices.

This guide complements the climate action we are taking in our own business. We have committed to our own science-based targets which require us to halve our global business greenhouse gas emissions by 2030. We are also proudly supporting broader climate action through our pro bono work and other efforts, including as a founding member of the Net Zero Lawyers Alliance and through our appointment as the official legal services provider to the UK Government for COP26, the UN Climate Change Conference in Glasgow in November.

In pursuing our purpose of making business better, we are committed to helping our clients and communities to transition to and thrive in a more sustainable future. We hope this guide supports your business in planning for, and making, its climate transition.



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above-mentioned publications, our quantitative analysis relies on the work of the Sabin Centre in maintaining its Climate Change Litigation Database.⁹

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⁶ TCFD Recommendations, p. 5.

⁷ Available at https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2020/07/Global-trends-in-climate-change-litigation_2020-snapshot.pdf

⁸ Available at <https://wedocs.unep.org/bitstream/handle/20.500.11822/34818/GCLR.pdf?sequence=1&isAllowed=y>

⁹ Available at <http://climatecasechart.com/>



COP 26: key takeaways

Important progress was made in Glasgow at COP26 towards global action to address climate change. Immediate and significant work is now needed to raise ambition across the board and implement current pledges. The ultimate test of Glasgow will be in how different stakeholders deliver on their pledges with real, short-term, accelerated actions.

Set out below is an overview of developments at COP 26 and consequences for businesses in relation to eight key areas.

Halting deforestation

A major declaration signed by more than 130 countries promises to collectively halt and reverse forest loss and land degradation by 2030. A commitment on eliminating agricultural commodity-driven deforestation signed by more than 30 financial institutions (including Schroders, AXA, Legal & General Investment Management and Aviva) covering over USD8.7 trillion of global assets under management aims to move away from portfolios that invest in high deforestation-risk agricultural commodity supply chains and towards sustainable production.

All businesses are exposed to sustainability and climate risk in their value chains. Businesses need to prepare and implement adequate due diligence strategies to de-risk their value chain in relation to deforestation and other adverse environmental impacts while ensuring minimum safeguards, including respect for human rights and good governance.

Action on Fossil Fuels

The Global Methane Pledge requires 105 countries to cut their methane emissions by 30% between 2020 and 2030 and move towards using the best available inventory methodologies to quantify emissions. Coal phase-out secured a 190-strong coalition of countries and organisations, with Poland, Vietnam, Egypt, Chile and Morocco announcing commitments to phase out coal power. Additionally, 25 countries, including Indonesia, South Korea, Poland and Vietnam, committed not to build or invest in new coal power. 30 nations also signed a statement on international public support for clean energy transition, committing to end new direct public support for the international unabated fossil fuel energy sector by the end of 2022, except in limited and clearly defined circumstances that are consistent with a 1.5°C warming limit and the goals of the Paris Agreement.

Businesses' exposure to fossil fuels will vary from country to country; however, it is clear that the pressure to phase out fossil fuels will only increase over coming years. Most businesses will be exposed to risks associated with the phasing out of fossil fuel through their consumption of electricity (Scope 2 emissions) and other key inputs. Quantification of GHG emissions and a science-based target to reduce emissions will help businesses to identify a transition pathway that meets their operational needs and investment requirements in the short and mid-term.

Strengthening Nationally Determined Contributions

The Glasgow Climate Pact recognises the need to reduce emissions by 45% by 2030 from 2010 levels, which requires accelerated action this decade. Countries now need to scale up mitigation ambition and implementation. The agreement requests governments to strengthen 2030 National Determined Contributions (NDCs) as necessary to align with the Paris Agreement temperature goal by the end of 2022. There will now be an annual ministerial roundtable on pre-2030 ambition starting at COP27 next year to pledge actions and review progress. To galvanise action, the Secretary-General of the United Nations will convene world leaders in 2023 to consider ambition for 2030.

This represents a significant shift from a five-year cycle agreed in Paris to a yearly one. If governments do not collectively reduce emissions by 45% by 2030 from 2010 levels, the 1.5°C target will truly be out of reach and will result in more severe physical climate impacts. Businesses will need to consider this accelerated pressure to mitigate GHG emissions (including transitional risk, enhanced policy and regulation, technology risk, market risk and legal risks) as part of their climate-related financial reporting and disclosure. If done adequately, this will enable businesses to manage climate risk and seize business opportunities.

Voluntary Carbon Markets

Countries also reached agreement on the pending issues of the Paris Rulebook. One of the outstanding elements agreed in Glasgow relates to voluntary cooperation mechanisms under Article 6 of the Paris Agreement, which covers mechanisms based on carbon markets and a third based on non-market approaches. The latter takes forward the development of climate cooperation under Article 6.8, with the formation of a Glasgow Committee on Non-market Approaches, which is due to meet twice a year until at least 2027.

For the bilateral mechanism established under Article 6.2, the rules ensure authorisation for the use of Internationally Transferred Mitigation Outcomes (ITMOs), tracking of ITMOs and the requirement to carry out corresponding adjustments so they are reflected in each country's NDCs.

For the mechanism under Article 6.4, the rules agreed pave the way for host governments to provide authorisation for emission reductions issued for use towards achievement of NDCs and/ or for other international mitigation purposes. Corresponding adjustments will apply to all authorised 6.4 certified emission reductions to prevent the risk of double counting. It's not yet clear what will fall under "other international mitigation purposes," but this paves the way for emission reduction purchased by corporates that are authorised by host governments to be accounted for via corresponding adjustments, which importantly reduces the risk of double counting or double claiming in the voluntary carbon market.

Article 6 rules may encourage countries to consider linking their emissions trading systems, or to purchase emission reductions they can use towards their national climate goals. The rules also provide for environmental integrity through authorisations and corresponding adjustments. However, more detailed rules will be required to provide guidance on international mitigation purposes and the use of unauthorised issued certificates by public and private entities.

Financial services accelerating the transition gap

COP saw a broader conversion from the finance sector under the banner of the Glasgow Financial Alliance for Net Zero (GFANZ), chaired by Mark Carney, UN Special Envoy on Climate Action and Finance. GFANZ brings together existing and new net-zero finance initiatives in one sector-wide coalition, providing a forum for financial institutions to accelerate the transition to a net-zero global economy.

GFANZ's membership currently includes over 450 financial firms across 45 countries responsible for assets of over USD130 trillion. This constitutes the largest private financial sector initiative thus far and their presence was notable as the first time the mainstream financial sector has attended a COP. Both governments and the financial services sector have much to do to define and implement the incentives and frameworks to deploy resources at speed and scale towards climate positive and carbon negative commercial opportunities to achieve Mr Carney's view of the financial sector transitioning from being a "fault-line into a pipe-line" in net-zero terms.

The financial services sector will need to enhance the depth of its climate-related financial disclosures, including its strategy, stress test analysis and data on financed emissions. The expectation for the finance sector is to develop adequate net-zero plans to align portfolios to the Paris Agreement goal, which will be under enhanced scrutiny by a wide range of stakeholders.



Scrutiny of corporate net-zero targets set to escalate

With such momentum towards net-zero pledges, all eyes are now on implementation, transparency and accountability. In the words of Antonio Guterres, Secretary-General of the United Nations, “we need pledges to be implemented. We need commitments to turn concrete. We need actions to be verified. We need to bridge the deep and real credibility gap.” Because of this – and beyond the mechanisms already set out in the Paris Agreement – the Secretary-General has decided to establish a High-Level Expert Group to propose clear standards to measure and analyse net-zero commitments from non-state actors. This group will build on existing work and submit a series of recommendations to the Secretary-General during the course of 2022.

There will now be an increased focus on greenwashing, particularly in light of the raft of pledges aligned to the Paris Agreement, with litigators predicting a wave of greenwashing claims coming down the line. The emerging trend in climate action is towards stakeholder accountability: governments, non-state actors, private sector and civil society. In line with this, the UK government announced at the start of COP that it will move towards making the publication of transition plans mandatory.

To achieve this, the UK will set up a high-level Transition Plan Taskforce to develop a “gold standard” for transition plans and associated cutting-edge metrics, coordinating with international efforts under GFANZ and others, and reporting by the end of 2022.

Any business wanting to retain market share, and remain competitive and relevant must now:

- develop credible near- and mid-term climate action plans or review and revise them if already prepared;
- implement plans with urgency and conviction; and
- create transparency and accountability frameworks to track progress and results.

Such plans cannot be developed or implemented in a vacuum. They will need to align with broader sustainability factors on both sides of the equation – environment and social factors. Speed, fairness and transparency and governance need to be at the centre of any climate action.

International accounting standards converge under the governance of the IFRS Foundation

Over the next 12 to 18 months we'll see enhanced regulatory attention of climate-related plans and corporate sustainability reporting. On 3 November 2021, the IFRS Foundation Trustees announced the creation of the International Sustainability Standards Board (ISSB) to help meet the demand for high quality, reliable harmonisation of corporate reporting.

As part of the momentum, post-COP26 we'll see such responses coming from a multitude of jurisdictions, along with increasing pressure from stakeholders to prevent greenwashing on both climate and sustainability-related claims. Business needs to assess which Environmental, Social and Governance (ESG) factors are financially material to their business model and broader material environmental and social impacts: the so-called concept of “double materiality”. With the formation of the ISSB, the market will be able to move towards a harmonised corporate sustainability reporting framework.

Adaptation finally on the agenda

The Glasgow Climate Pact acknowledges that impacts at 1.5°C are significantly lower than at 2°C global warming and calls for developed nations to at least double their collective provision of climate finance for adaptation from 2019 levels by 2025. This financing commitment will also increase the attention of stakeholders on resilience to the physical impacts of climate change and resilient business models. Businesses are not only exposed to the physical impacts of climate change due to their geographic location and key dependencies on natural resources, but also through their entire value chains. In-depth understanding of how business models can build resilience will be key a differentiator of successful and long-term business models as we experience more frequent acute events and chronic climate-related impacts.

The evolution of climate litigation

There has been a dramatic rise in climate change litigation in recent years, such that it is now an increasingly prominent feature of the international disputes landscape. In a growing number of markets, cases have been brought seeking to compel governments and businesses to act on climate change. That trend is accelerating; by 2006, only around 20 cases relating to climate change had been brought in courts globally; by 2007, that number had quadrupled. By the end of 2020, well over 1,700 climate-related court cases had been decided worldwide.¹⁰

The sharp rise in cases since the mid-2000s has followed key events, including the failure to reach a meaningful global climate agreement at COP15 in Copenhagen in 2009, and, on the other hand, legal and regulatory changes introduced in response to climate change.

The most common category of climate litigation is cases brought in the US, against government authorities, to challenge permits or measures taken under environmental planning legislation in relation to high-emitting industries. However, the typical profile of a climate-related case is evolving. Test cases are emerging outside the US and in different areas of law, including public law, companies and securities law, human rights law and international arbitration, and are affecting a wider range of sectors.

First wave of climate litigation against companies (early 2000s to 2015)

In the first wave, the most exposed sectors were carbon-intensive industries responsible for generating high levels of greenhouse gas (GHG) emissions. The majority of those cases were brought under the law of tort in the US. The claims failed, principally because of the difficulty, as a matter of fact and law, of establishing the causal link between the particular emissions of the corporation and climate change impacts.

Second wave of climate litigation against companies (2016 to present)

In the second wave, the targets for climate litigation extended beyond carbon-intensive industries. In addition to the continuing trend in cases concerning a company's contribution to climate change through their GHG emissions, other types of claims against businesses across various sectors began to emerge. These included claims concerning directors' duties and a company's obligations to adequately disclose the financial risk of exposure to climate change brought about by their business activities. The evolving landscape of litigation against governments is triggering further legal and policy changes which have ripple effects across the private sector.

Landmark climate change cases that have impacted the regulatory landscape for business

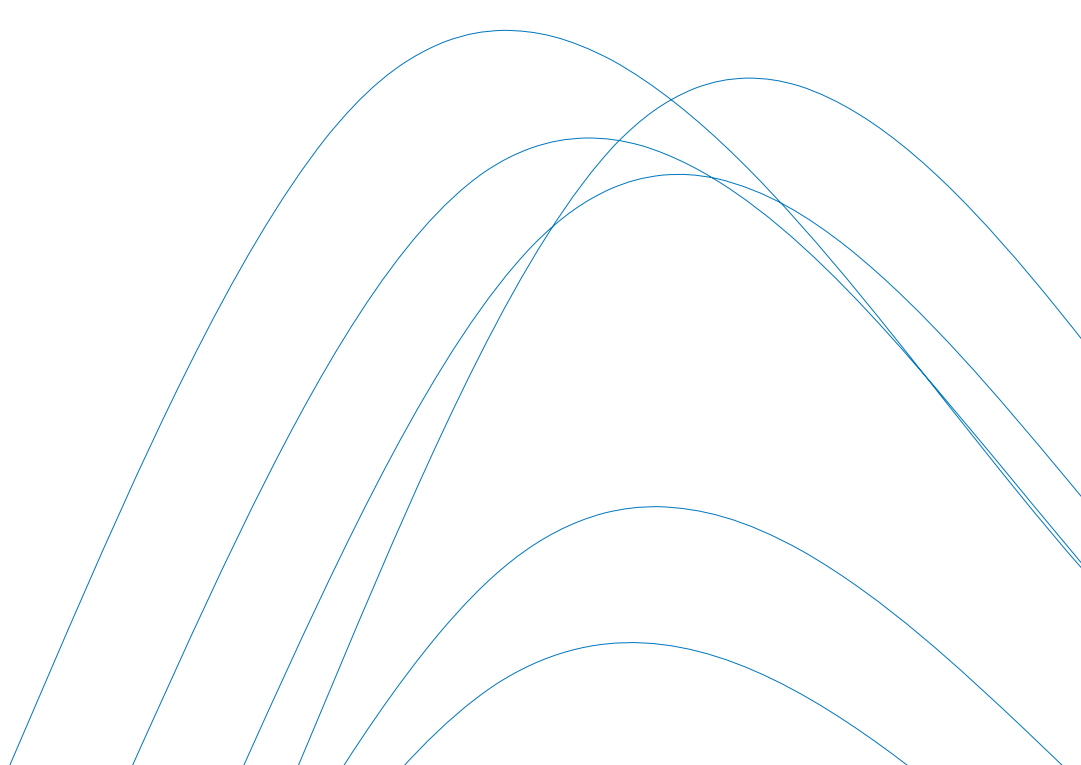
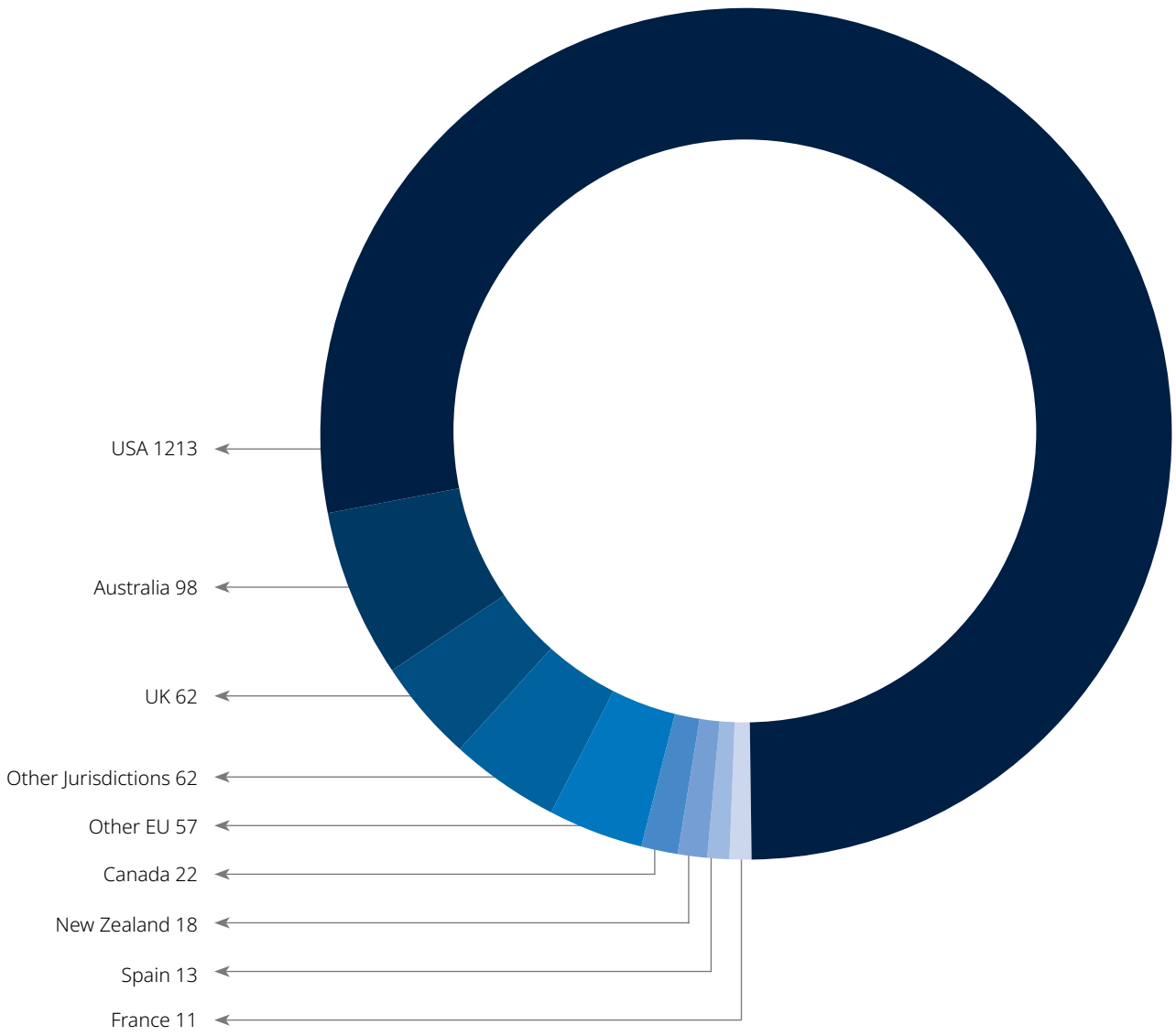
April 2007: The United States Supreme Court decides that the petitioners (12 US states and several cities) have standing and that the EPA was mandated to regulate carbon dioxide and other greenhouse gases (GHG) pursuant to the Clean Air Act (*Massachusetts v. EPA*).

February 2019: An Australian state environmental court rejects the Rocky Hill coal mine development application, including on the basis that it is inconsistent with obligations to meet targets set under the Paris Agreement (*Gloucester Resources Limited v. Minister for Planning*).

December 2019: The Supreme Court of the Netherlands rules that the Dutch government has a legal obligation to reduce its emissions based on international human rights law. The Court upholds the lower court's order to reduce emissions by 25% on 1990 levels by 2020 (*State of the Netherlands v. Urgenda Foundation*).

¹⁰ Sabin Centre for Climate Change Law (2021) 'Climate Change Litigation Databases', <http://climatecasechart.com/>. See also United Nations Environment Programme (2017) 'The Status of Climate Change Litigation, A Global Review', <https://wedocs.unep.org/bitstream/handle/20.500.11822/20767/climate-change-litigation.pdf>.

Most active jurisdictions where climate-related claims have been filed to date



Relevance of climate litigation risks for business

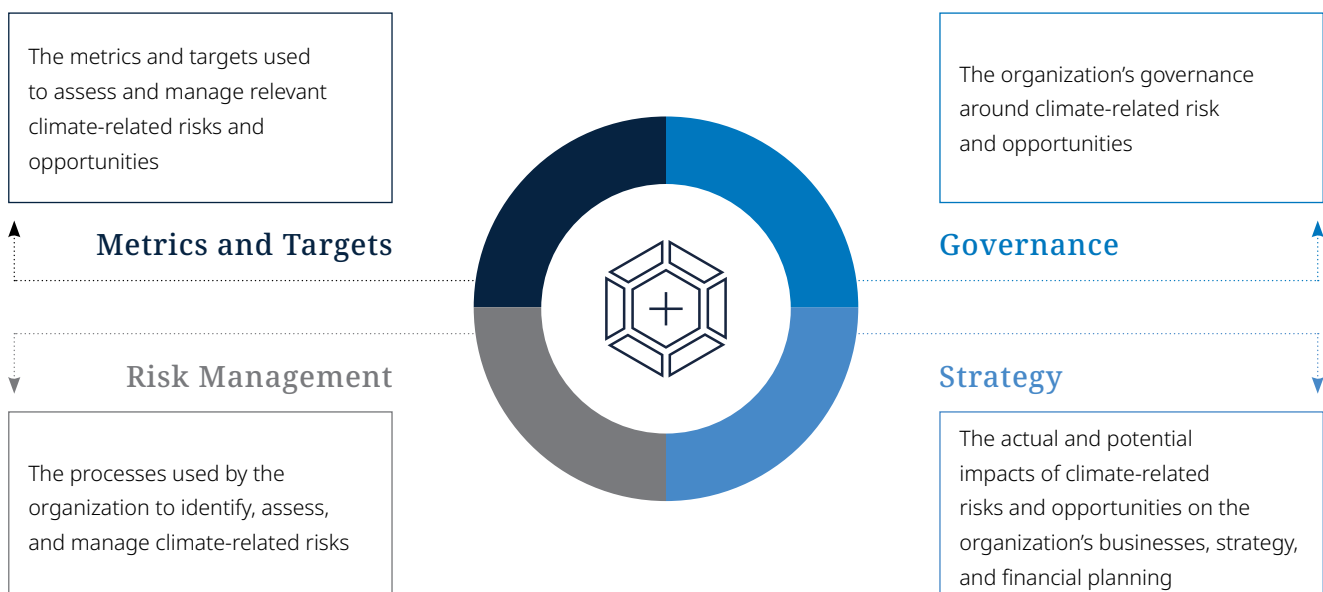
The key international framework for climate-related financial disclosure was developed by the Task Force on Climate-related Financial Disclosures (TCFD). Building on the momentum towards the Paris Agreement in 2015 and the calls of the G20 and Central Bank Governors for a review of climate-related issues affecting the finance sector,¹¹ the Financial Stability Board launched the TCFD. The two-year industry-led process concluded its work in 2017 with a landmark final report and recommendations.¹²

Since then, the TCFD framework and categorization of climate risk has become the reference point for both international and national standards. More than 1,500 organizations globally have expressed their support

for the recommendations, including 1,340 companies with a total market capitalization of USD12.6 trillion and financial institutions responsible for assets of USD150 trillion.¹³ The recommendations are being adopted in mandatory regulatory requirements in an increasing number of jurisdictions, including New Zealand and Canada. Several other jurisdictions, including the EU, the US, Chile and Australia, have reflected TCFD recommendations in regulatory guidance and are making moves towards TCFD-aligned mandatory disclosures.

The framework is built around four pillars: (1) governance; (2) strategy; (3) risk management; and (4) metrics and targets.

Core elements of recommended climate-related financial disclosures (TCFD, 2017)



¹¹ Communiqué, G20 Finance Ministers and Central Bank Governors Meeting, Washington D.C., April 16-17, 2015. Available at https://www.mof.go.jp/english/international_policy/convention/g20/150417.htm.

¹² TCFD (2017) Final Report, Recommendations of the Task Force on Climate-related Financial Disclosures; available at <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf>.

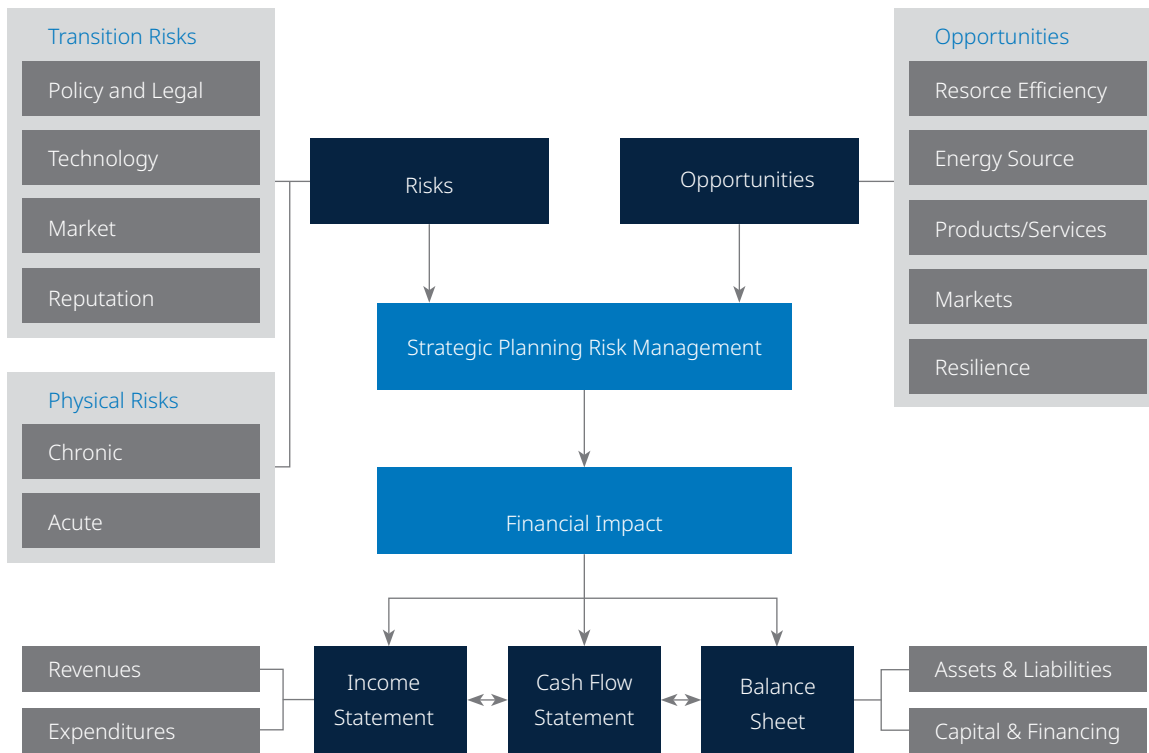
¹³ TCFD (2020), 2020 Status Report, page 2. Available at https://assets.bbhub.io/company/sites/60/2020/09/2020-TCFD_Status-Report.pdf.

Central to the TCFD recommendations is the breakdown of climate risk into **physical risks**, being acute risks arising from extreme weather events and the chronic risks arising from changes in long-term weather patterns, and **transition risks**, being risks arising from policy, legal, technological and market responses to decarbonization, as well as associated reputational risk.

The global shift towards mandatory climate-related financial disclosure by companies will allow for more comparable data scrutiny and accountability for climate action, which can itself increase exposure to climate-related claims. There is now growing momentum behind

both national governments and the private sector to update carbon reduction targets and pursue efforts to limit the rise in global temperature (to 1.5 degrees Celsius above pre-industrial levels) in line with the Paris Agreement. Under pressure from stakeholders, companies are starting to determine their contribution to climate change and are making significant pledges to reach net zero emissions or similar targets. It is anticipated that standardized disclosure requirements aligned with the TCFD will help to improve transparency and prevent greenwashing. However, it will also mean that stakeholders are able to track, monitor, assess and dispute the adequacy of climate action more effectively.

Climate-related risks, opportunities, and financial impact (TCFD, 2017)



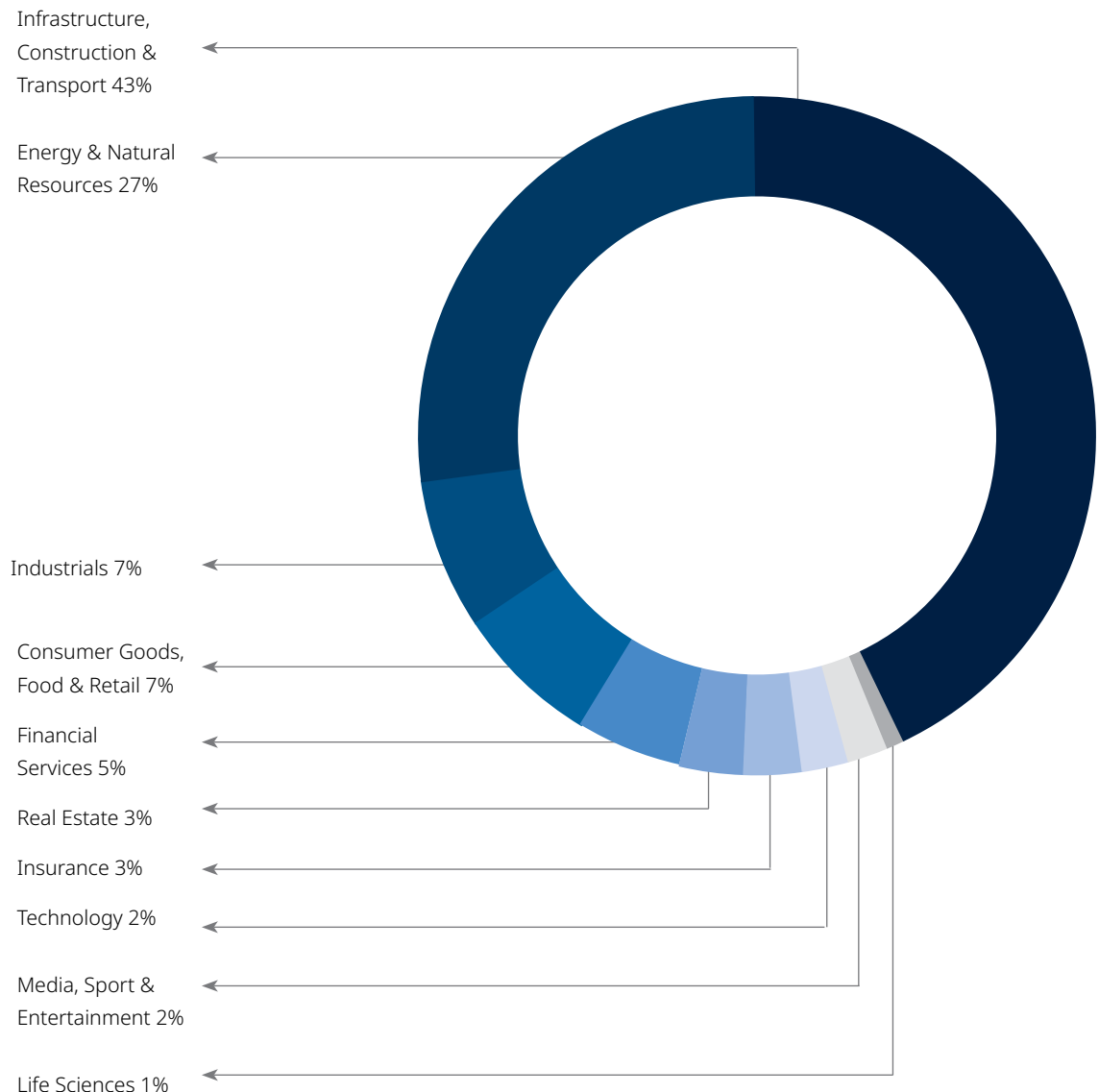
Climate litigation affecting your sector

The second wave of climate litigation has surged in recent years and has the potential to impact businesses across all sectors.

High-emitting sectors continue to be the most exposed to transition risks, including climate litigation and related legal and policy risks. Those sectors include Energy & Natural Resources; Industrials; and Infrastructure, Construction & Transport (see below).

However, Claimants are innovating and using novel legal strategies to drive emissions reductions in the private sector. Most notably, there is an emerging class of claims concerning disclosure of climate-related financial risk and management of those risks or publishing misleading information. While the leading cases concern the financial services sector, they are symptomatic of a trend that is likely to spread across other sectors and jurisdictions as the law evolves, and as public scrutiny of climate-related risks increases.

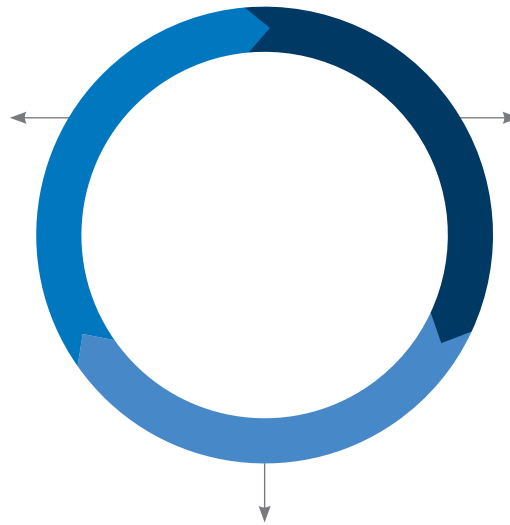
Key sectors involved in climate litigation



Business-wide impacts of climate litigation risks

GOVERNANCE

- Changes to corporate accountability including directors' duties
- Expanding risk management

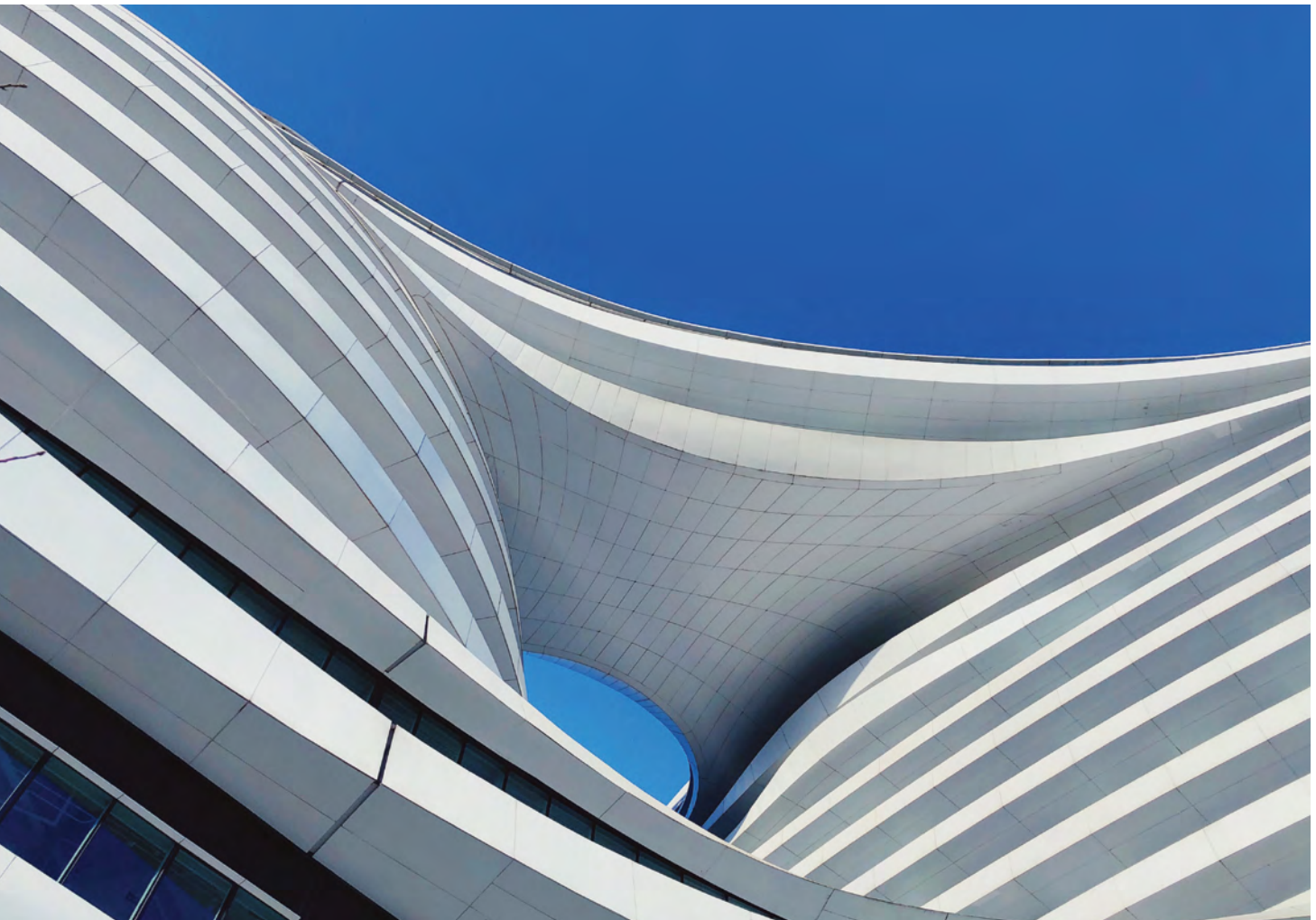


OPERATIONAL

- Limiting existing operations
- Preventing expansion projects
- Supply chain exposure

FINANCIAL

- Suppressing sales
- Increasing financial disclosure obligations



Infrastructure, Construction & Transport

Overview

Given the symbiotic relationship between major infrastructure projects and the environment, it is unsurprising that climate change is driving significant developments within the Infrastructure, Construction & Transport (**ICT**) sector. Among other things, the sector is considering:

- the extent to which existing assets may need to be adapted and/or updated;
- how new assets will adapt to climate change – through planning, design, construction and operation; and
- what further infrastructure will be required to deal with the effects of climate change (e.g. flood defense systems).

Climate litigation typically arises in three ways: (i) challenges to early planning and procurement phases of a project; (ii) pollution and environmental damage resulting from the construction and ongoing operation of projects; (iii) private disputes between commercial entities arising from the failure by a party to comply with relevant environmental obligations and design standards, or where a project is no longer economically/politically viable. The first looks to ensure sustainable development, and in doing so attempts to discourage developments that have the potential to be environmentally damaging. The second and third can lead to the disruption or even termination of projects that are particularly damaging – whether this be due to inadequate compliance with environmental regulation, failure to take account of the changing climate or as a result of poor preparation and execution in the design, planning and construction phases.

Disrupting existing carbon-intensive projects

Carbon-intensive projects may be disrupted by climate issues if there are complaints that the design and/or construction of a project has not adequately taken into account GHG emissions (climate mitigation) or does not sufficiently acknowledge and/or allocate risk appropriately in respect of extreme weather events and natural disasters (climate adaptation).

US: Engineering and construction companies have been held liable for property damage caused by natural disasters (such as floods or hurricanes) on account of the companies' negligent failure to prepare for climate change impacts in the design or construction of the property. The companies were found to have contributed to property damage through both actions and omissions in the construction of property, signifying the importance of integrating climate resilience into business activities.

- **UK:** Government policies encouraging reduced carbon emissions in waste management have triggered changes to the scope of works, targets and deliverables for energy-for-waste (**EFW**) facilities and waste services contracts. In England, waste management is subject to the "waste hierarchy" which is both a guide to sustainable waste management but also a legal requirement under the Waste (England and Wales) Regulations 2011. This puts pressure on both Local Authorities and companies operating in the industry to increase the efficiency of waste management contracts to comply with the regulations, giving rise to disputes where a change in the scope of services or deliverables leads to increased financial pressure on either party.
- **Global:** Commodities and materials required for construction and infrastructure projects have been and will continue to be impacted by climate change globally. The sector has seen difficulties sourcing and transporting commodities due to more extreme weather conditions and fluctuations in demand and pricing as a result of climate change. The frequency and severity of extreme weather events such as the wildfires occurring across western Canada and the United States significantly impacted on lumber production, supply and transport over the past several years. Supply chain issues can trigger liability for additional costs, disruption and delay (including liquidated damages) claims.

- **Global:** Extreme weather can also impact labor and productivity in the sector and cause issues on projects where laborers are physically unable to get to their jobs due to flooding or other extreme weather events or are unable to work due to extreme temperatures or site conditions. As above, issues with labor and productivity on projects can give rise to increased costs, disruption and delay (including liquidated damages claims) claims.

In relation to projects which produce high emissions, the ICT sector can expect an increasing number of claims which seek to establish a failure to comply with the latest emissions standards and other regulations, following similar trends in the Energy & Natural Resources sector. Projects will continue to be challenged on the basis of environmental protection and planning legislation.

In the Transport sector, aviation companies face heightened transition risks in addressing the significant GHG emissions caused by their activities. Legal actions and increased regulation of aviation emissions are hastening the development of low-carbon fuel technologies.

- **Brazil:** The public prosecutor has brought claims against several airlines using a major airport, seeking to compel the companies to offset their carbon emissions by contributing to reforestation efforts in the region. Although these claims were rejected on technical grounds, it is possible similar claims will be found to have merit putting pressure on airlines to consider offsetting activities.
- **EU:** In response to a legal challenge from US airlines, European courts upheld the validity of the aviation emissions part of the EU's Emission Trading Directive, which imposes mandatory requirements on the aviation industry to address emissions from commercial flights into or out of EU airports by imposing emissions trading requirements on airlines with aircraft arriving, departing and traversing EU airspace. This effectively means airlines have to pay levies if they exceed the emissions quota. This Directive has now been implemented in national laws across the EU.
- **International:** Emission reduction obligations are also in force at the international level. The ICAO's CORSIA is an offsetting mechanism where countries should have airlines based in those countries offset CO₂ emissions that exceed the relevant baseline by international credits. On 4 October 2021, the airlines member of the global organization IATA agreed to

reach net zero carbon emissions by 2021. They count on sustainable aviation fuels, new technologies and carbon capture and offsetting to reach this objective. Of course the trend of many countries (e.g. the Netherlands) introducing environmental taxes on aviation tickets or on kerosene may have spurred this development on.

- **France:** France has been the first country to impose a ban on short-haul flights where no adequate transport connection is available.

Preventing carbon-intensive development proposals

New proposed developments in the ICT sector could be blocked or delayed as a result of climate-related claims. Specific proposals have faced challenges to approvals by planning authorities on the basis that their decisions do not comply with states' obligations to reduce GHG emissions under nationally determined targets or standards. Claimants have also targeted macro-level decisions or policies in the Infrastructure and Transport sectors, such as on airport expansion, in order to discourage the growth of high-emitting industries.

- **UK, Ireland and Austria:** Similar cases have been brought in these jurisdictions by environmental NGOs and individuals seeking to block the construction of further runways at major international airports. The claimants have challenged the relevant public authority's approval of the project on the basis that it failed to take proper account of the states' national and international climate change commitments to reduce GHG emissions. Although these cases have not succeeded in blocking development, courts have highlighted that development proposals may need to take into account emissions targets and government policy on climate change in the future, as environmental policies and laws are strengthened.
- **UK:** The state transport authority has faced a challenge in relation to a major road-building program, on the basis that it failed properly to account for the UK's climate change obligations under the Paris Agreement. It was argued that the program conflicted with commitments to reach net zero by 2050 given emissions involved in the construction of the roads and projected use by fossil fuel-emitting vehicles. The road-building program was subsequently suspended.
- **US:** Among numerous other examples, US claimants have challenged a transport authority's approval of a diesel truck expressway, arguing that the authority failed in the decision-making process to properly

and adequately assess the resulting GHG emissions and climate change impacts associated with the construction, running and movement of trucks on the expressway.

- **Belgium:** A significant number of construction projects at the planning stage have been reappraised, after objections raised by local stakeholders or NGOs, due to their resilience against expected increased floods as a result of climate change. This has led to the refusal of many construction permits, including for large-scale construction projects.



Energy & Natural Resources

Overview

The Energy & Natural Resources (**ENR**) sector has been a major focus for climate related litigation around the world. Such focus was inevitable because, in a way that is perhaps more visible and well documented than any other sector, many of its processes are carbon-intensive, and it is a well-documented source of atmospheric and other types of pollution, which have long been a focus for the attention of environmental campaigners.

It is also a sector with capacity to make significant change, as illustrated by the dramatic recent growth of the renewables sector, and the increasing pace of the energy transition (fueled by the emergence of new technologies which provide, for example, increasingly cost-effective access to cleaner forms of hydrogen). That provides additional motive for claimants, as climate-related litigation has the ability (and in some instances may have already had the effect) of driving and increasing the speed of change.

ENR businesses may query whether shining an unflattering light on their practices, which in many instances they have already committed to change, is the most effective way to motivate positive change. However, in the current climate, and the broader trend toward increased activism, ENR sector businesses must both commit to climate-related change and expect to face increasing amounts of litigation which seeks to push them to move further and faster towards low carbon business models.

Disrupting fossil fuel projects and seeking remediation for historic emissions

New and ongoing fossil fuel projects, which produce large quantities of direct GHG emissions, are an obvious target for NGOs, activist shareholders, regulatory authorities and trade associations who see litigation as a route to compensation as well as preventing further environmental harm. This can have a disruptive impact on current projects and can incur significant costs, not only in defending litigation but also in taking remedial action.

- **United States:** Energy companies have faced claims relating to emissions output and the resulting impacts on the climate and oceans. Claims in tort have pleaded negligence, public nuisance, strict liability for design defects and strict liability for failure to warn of climate impacts. These cases have

emphasized the companies' prior knowledge of the adverse climate impacts of their operations and their high contribution to global GHG emissions. Some claimants have sought compensatory damages from energy companies for climate change impacts on their business (such as loss of fisheries stocks), taking into account the companies' specific contribution to global GHG emissions. While such cases have been largely unsuccessful to date, or remain ongoing, it is clear that claimants, including businesses, Government authorities and NGOs, are increasingly willing to pursue such claims in order to challenge the adverse climate impacts of operations of companies operating in the ENR sector.

- **Germany:** A novel claim has been brought in Germany under tort law by a Peruvian farmer against a German ENR company on the basis that the company's GHG emissions are contributing to glacial retreat and could lead to the potential collapse of two glaciers, actively threatening his home in Huaraz, Peru, which is on a flood path. He is seeking compensation for the costs incurred to mitigate the impacts of climate change, calculated with reference to the company's share of global GHG emissions. It was alleged that the company must have known of the potential risks that their activities would cause and failed to warn of the risks, that it was negligent in continuing to carry out their activities; and that its emissions constituted a public nuisance. The court of first instance dismissed the claims, but the appellate court found that large emitters can in principle be liable vis-à-vis those affected by climate change.
- **France:** Oil and gas companies have faced claims under France's Duty of Vigilance law alleging failure to properly assess the environmental and human rights impacts of projects, including the level of GHG emissions. A first case against Total was dismissed for lack of jurisdiction. In the second litigation, 14 local authorities and 5 associations took Total to court because of its alleged major contribution to climate change and the inadequacy of the measures taken by the company to prevent the resulting human rights, health and safety, and environmental damage. The claimants rely on the French Duty of Vigilance Law, but also on the judge's power to order measures to stop or prevent environmental damage under Article 1252 of the Civil Code. In an order issued on 11 February 2021, the judge this time confirmed the jurisdiction of the civil court.

- **Philippines:** Following a three-year investigation, the Philippines Commission on Human Rights made a landmark ruling that corporations could be found legally liable and morally responsible for human rights harms to Filipinos due to their contribution to climate change. The Commission had been asked to investigate whether the human rights of the Filipino people were adversely affected by climate change and related phenomena such as ocean acidification, and whether investor-owned carbon majors contributed, and knowingly continue to contribute, to these impacts. The investigation was the largest of its kind, amassing scientific data, documentary evidence and legal analysis from experts. While the decision was not binding and no penalties were imposed on specific companies, the Commission indicated that carbon majors could be held liable under existing civil law in the Philippines and potentially under criminal law in cases involving obstruction, deception or fraud related to the disclosure of climate risks.

Preventing the development and expansion of fossil fuel projects

Energy and natural resources businesses are facing similar claims aimed at preventing the development of new projects owing to their perceived climate impact. Such claims have usually referred to a company's failure to comply with national and international environmental laws or standards.

- **Argentina:** Several cases have been brought against energy companies to block the proposed construction of thermoelectric power stations. Considering the projected emissions that would be produced by these proposed fossil fuel projects, arguments have been raised that the plans fail to meet environmental assessment laws and are also inconsistent with Argentina's obligations under international climate agreements including the Kyoto Protocol and the Paris Agreement. The cases are still pending.
- **Australia:** Energy companies and government authorities have been challenged in relation to fossil fuel projects on the basis that prior approvals given by authorities were in violation of local environmental protection laws. For example, even though an environmental protection authority had given approval for extraction of natural gas, it was alleged that it had no power to approve a change to that proposal which would allow unlimited gas to be extracted, as the law imposes limits on fossil fuel extraction from particular sources. Both the authorities and companies have faced arguments that projects were not approved in accordance with the statutory requirements and, in particular, that the full breadth of environmental and climate impacts ought to have been considered in the approval process.
- **UK:** British companies planning to conduct extractive activities overseas have faced complaints under the OECD Guidelines for Multinational Enterprises. These complaints aimed to block their permits for these activities, on the grounds that they violated the OECD Guidelines by failing to take adequate steps to consider and address the environmental and health impacts of the fossil fuel activities and, in particular, their contribution to climate change.

Reducing greenhouse gas emissions

In addition to cases aimed at stopping specific projects or planned projects, there is an emerging class of cases that aim to motivate energy and natural resources companies to adopt more ambitious overall caps on emissions produced by their operations.

- **Netherlands:** A recent judgment handed down by the District Court in the Hague in the Netherlands found that Royal Dutch Shell has a duty of care under Dutch civil law to protect Dutch citizens from climate change impacts. This judgment builds on the Urgenda case, to require Royal Dutch Shell to reduce its emissions and bring its corporate strategy in line with the Paris Agreement.
- **Poland:** Polish courts have ruled that company resolutions approving the construction of a coal-fired power plant could constitute breach of board members' fiduciary duties, if shown that the construction would harm the company's interests were the power plant not to be economically viable when compared to more environmentally sustainable alternatives. Separately, there have been cases brought under domestic environmental protection laws which seek to halt state-owned companies' investments in fossil fuels and to impose GHG emissions targets on existing coal plant projects.

Challenging green marketing

Risks can arise where marketing strategies employ unsubstantiated environmental claims which could be said to be “greenwashing”. False or misleading representations could result in litigation and/or regulatory action.

- **UK:** A complaint has been made to the National Contact Point for the OECD Guidelines for Multinational Enterprises against a company which allegedly produced misleading advertising in relation to low-carbon energy activities. Fossil fuel companies are particularly under scrutiny for how they present their low-carbon activities to the public in light of their other extractive activities, their role in the global energy system and their contribution to climate change.
- **Italy:** The competition regulator has indicated it will impose fines for greenwashing against companies making misleading claims to the public, for example, where palm oil-based diesel is marketed as “green” when in fact the palm oil source could be linked to deforestation and other environmentally damaging activities.
- **Netherlands:** The Dutch quasi-judicial body that hears claims on misleading advertising has held that a company engaged in misleading advertising by claiming that customers could fill up gasoline “climate-neutrally”.

Disclosure of climate risks and fiduciary duties

Climate change has become recognized as a financial risk which should be disclosed and addressed in the risk management strategies of every business. In the Energy & Natural Resources sector, this recognition has led to an increase in claims brought by shareholders and investors against companies for failing to properly disclose or manage the financial impacts of climate-related risks.

- **US:** Oil and gas companies have faced several lawsuits alleging breaches of fiduciary duties by directors or misrepresentations by companies in failing to disclose the cost of climate-related risks under company law or securities law. These cases have been brought on the basis that the companies were aware of and predicted the impacts of climate change, and at the same time significantly under-reported the climate-related risks to their business. In addition to existing disclosure requirements, the US Securities and Exchange Commission has introduced a rulemaking process that could soon require mandatory disclosure of climate change risks. Examples across sectors (notably Financial Services) and in other jurisdictions serve as a warning for companies and directors who are not already compliant with best practice disclosure standards.



Industrials

Overview

Those operating in the Industrials sector face a large number of climate related claims due to the intensive, physical and often substantially natural resource demanding practices they employ, particularly those in the mining, manufacturing and chemical industries.

The sector is characterized by carbon intensive processes required to extract, refine and ready raw materials. Decarbonization requires a reorientation of these processes to ones that are less carbon intensive, new fuel and energy sources must be developed, new machines and production methods used and more sustainable commodities sourced (value chain management).

The Industrials sector is also a focus for allegations of false and misleading statements, whether in advertising or market disclosures. This can create a risk of reputational damage from public campaigns that are mounted alongside any litigation.

Blocking industrial operations which risk environmental harm

Industrials projects which involve risks of environmental harm are exposed to legal claims that could delay, disrupt or terminate these activities. While such claims tend to target specific activities or projects, they can cause wider disruption to a company's operations and loss in revenues, particularly if compensatory damages or remedial action is ordered.

Companies in the manufacturing, chemicals and automotive industries have historically faced environmental lawsuits (both civil and criminal) which stalled operations on the basis of environmental damage such as air pollution and toxic waste. The scope of such cases is expanding to include climate-related impacts such as GHG emissions and deforestation.

These climate-related claims are typically brought under tort law, for example, on the grounds of personal injury, public nuisance, reckless emissions or negligently failing to prepare for climate impacts.

US: Chemicals companies that failed to prepare for climate impacts (such as flooding which caused chemical explosions or spills) have faced tortious liability on the grounds of negligence, or even criminal charges for recklessly causing pollution. Independent disaster preparedness auditors were requested to assess climate-related damages in such cases.

Brazil: The government has brought civil cases against steel manufacturers for illegal deforestation, drainage of mangroves and unlawfully sourcing biomass and converting it to coal for steel production, thereby causing excessive GHG emissions. Compensatory damages for the deforestation and impacts of the resulting GHG emissions have been sought, as well as an order requiring that the steel manufacturers restore the natural environment.

US: Several cases have been brought against chemical companies for the environmental harm caused to local residents, farmers and employees as a result of manufacturing plants, particularly toxic waste pollution and exposure to harsh substances produced during chemical extraction processes. One plant alone attracted over 3,000 lawsuits and resulted in a settlement of USD700 million to compensate for harms caused.

Preventing carbon-intensive industrial projects

Companies in the Industrials sector, particularly those in manufacturing which engage in carbon-intensive activities, are exposed to climate-related claims seeking to block new projects or expansions from going ahead, usually by seeking an injunction and/or declaration that the project in question is unlawful.

Carbon-intensive project proposals that fail to address climate impacts and respond to sustainability concerns could face not only litigation preventing their development, but also the divestment of capital from lenders/investors and reputational damage.

- **Japan:** A class action was brought in Japan, seeking to injunct a steel company from expanding a coal-fired steel production plant. It was asserted that the construction would violate environmental laws by polluting local areas, preventing Japan from meeting its 2030 and 2050 emissions targets (pursuant to its commitments under the Paris Agreement) and causing violations of domestic rights to clean air, a healthy and clean environment and the right to enjoy a stable climate.
- **US:** Manufacturing companies have faced challenges on the basis of failure to properly assess the level of GHG emissions caused by proposed facilities under environmental planning laws, which could impede the companies' proposed development and expansion aims.

- **EU:** A major investment for a chemical plant with high CO₂-emissions was first scaled down as a result of local protests against its extensive emissions due to the use of natural gas as a feedstock. The scaled-down project was subsequently rejected in the permitting phase because the environmental impact assessment did not adequately take into account all the risks related to climate change. The chemical company has recently submitted a new scaled-down permit application with a much broader environmental impact assessment. However, NGOs have indicated that they will continue to challenge any issuance of a permit for the project to proceed.
- **EU:** In November 2021, NGOs brought legal action against Volkswagen on the basis of the commitments under the UNFCCC Convention and the Paris Agreement that automakers stop producing combustion engine cars by 2030, which is earlier than the 2035 effective ban proposed by the European Commission in its “Fit-for-55” package. Moreover, these NGOs threatened legal proceedings against other large car manufacturers and a German oil and gas company.
- **EU:** A recently launched claim in Belgium seeks to deny investment and grant support for projects and businesses that are greenhouse gas intensive: the claimant (an NGO) seeks to obtain a judgment against the Belgian national bank for participation in the European Central Bank’s bond-buying program insofar as it includes bonds issued by greenhouse gas intensive companies.

Barriers to project development can also be raised at the corporate governance level. Shareholder concerns in relation to climate change have led to shareholder activism and legal actions seeking to uphold shareholder resolutions on taking climate action.

- **US:** Institutional investors in an aerospace manufacturing company sued the company for excluding a shareholder proposal that the company adopt specific targets to manage its greenhouse gas emissions from matters to be considered at a shareholder meeting. The claim eventually resulted in the company agreeing to the proposal and adopting emissions targets.

Challenging green marketing

Companies in the Industrials sector are marketing products with green credentials such as low emissions output, sustainable sourcing of materials and carbon-offsetting schemes. While making public statements on green credentials and climate action is positive, failing to follow through could lead to complaints, mass litigation or regulatory action, which ultimately diminishes brand value and sales.

In particular, some companies have faced litigation over false or misleading green advertising (or greenwashing), particularly in relation to carbon-offsetting schemes.

- **Australia:** Competition regulators have succeeded in litigation challenging misleading marketing campaigns by companies in the manufacturing and automotive industries. Courts have ordered companies engaging in misleading or deceptive advertising to award compensation to customers who rely on such false claims or misrepresentations, and even to plant trees to offset the carbon emissions that would have been caused by sales during the misleading campaigns.
- **International:** The UN Special Envoy for Climate Action and Finance, Mark Carney, has set up a Task Force on carbon offsets. Carbon assets are used by financial institutions, industry and transport companies to offset their carbon emissions in situations where these are difficult to abate. The chemicals industry is the second largest sector to make use of offsets. The current market for carbon offsets is mainly voluntary and unregulated. The task force would like to reform the market so that it would be more transparent and there would be better guarantee for the high quality of the offsets (i.e. to ensure that the projects that generate credits for offsetting are additional to the decarbonization that would have taken place without the support of the credits and to ensure that the project presents permanent benefits in terms of climate mitigation).



Consumer Goods, Food & Retail

Overview

Companies in the Consumer Goods, Food & Retail (CGFR) sector rely on carbon-intensive supply chains and production methods to ensure the demand for goods, food and consumer items is met. They are also exposed to fast-changing consumer behavior, which is reflecting a greater focus on climate change. In response, CGFR companies are having to adapt their approach to show how they are improving their sustainability performance.

These new approaches are articulated via corporate marketing. However, a good marketing strategy will not make up for a lack of delivery or authenticity. Some CGFR companies have fallen foul of 'greenwashing' issues with attempts to paint their products in a more environmentally friendly way, when in reality their products are not as 'green' as they promise. This has led to claims of false and misleading marketing, reputationally damaging public campaigns and attention from consumer NGOs.

Given high levels of brand recognition in this sector, it is far easier for the consumer to appreciate (and therefore complain about) environmental issues stemming from CGFR companies' manufacturing and supply chain practices. Fast fashion, plastic pollution, intensive agricultural practices and deforestation are considered some of the worst contributors to climate change, all of which the CGFR sector contributes heavily toward. Such business operations are therefore heavily litigious, with claims brought through public health, nuisance, negligence and breach of regulatory frameworks as a means of inhibiting these activities.

Challenging green marketing

For companies in the CGFR sector, a leading source of risk concerns environmental claims made about their products in the course of marketing and sales. As companies seek to gain a competitive edge by strengthening their green credentials, they can become exposed to litigation, regulatory action and consumer complaints if environmental claims are not supported by evidence and are shown to be false or misleading, or otherwise inauthentic. The reputational impacts of these actions could have a substantial effect on consumer demand for products and long-term brand value.

- **US:** Consumers have brought class actions against companies for allegedly violating consumer laws or competition laws, for example, by misrepresenting the recyclability of its packaging and therefore underreporting their total contribution to methane emissions in an attempt to greenwash their business activities.
- **Australia:** Competition regulators have challenged the marketing of claims that consumer goods products are "environmentally friendly" and have required companies to change their advertising strategy to avoid misrepresentation of their products.
- **UK:** Following consumer complaints, the advertising standards regulator has sanctioned companies which falsely claim that their products or services produce "zero emissions". In parallel, the competition regulator has conducted industry-wide investigations into textiles and fashion, food and beauty companies, for making misleading environmental claims (such as "eco-friendly") in their marketing. Such sanctions and investigations can dramatically affect the goodwill of such public-facing companies as those seen in the CGFR sector.

Disrupting high-emitting manufacturing activities and operations

Another key risk area for companies in CGFR concerns alleged failure to address emissions output and other environmental harm caused by their operations. Such harms might include deforestation, intensive agricultural, water and air quality issues, transportation processes, chemical output and waste management. Business operations, including manufacturing activities within supply chains, can be disrupted by claims of negligence, public nuisance and breach of environmental protection laws. This is in addition to increasing numbers of regulatory complaints, both at the international and domestic levels.

- **US:** Some state courts have recognized a decision-maker's obligation under public law and environmental law to properly consider a project's GHG emissions and effects on climate change. For example, on this basis, a citizens group challenged a government authority's approval for a project to demolish and rebuild a clothing brand store which failed to properly consider GHG emissions as required under state law.

- **Brazil:** A state public prosecutor successfully brought a claim against local farmers over their practice of burning sugar cane to harvest the sugar, a practice which allegedly contributed to GHG emissions, reduced air quality and had harmful health effects on farm workers. It was ordered that any harvesting methods used should be less polluting, even if this meant increased cost. Such cases have sought to enforce industry best practice for reducing environmental damage.
- **New Zealand:** Companies in the dairy industry have faced actions in public nuisance, negligence and novel torts concerning their control of GHG emissions (such as methane) and the resulting contribution to climate change when they are released. As the ability to accurately measure release of emissions improves, it will be easier to hold companies to account if they are found to have damaged the environment to an extent that warrants punitive measures.
- **US:** Courts have taken climate change into consideration in assessing the negative environmental impacts of excessive use of groundwater, for example, in agricultural operations. In one case, appealing to the right to water enshrined in the California Constitution, the claimants argued that the use of groundwater by agricultural companies should be considered in the context of California's drought and poor quality water resources, which would continue to worsen as a result of climate change. The use of natural resources by a company should be reasonable to achieve their business activities, and not wasteful in light of relevant environmental conditions.



Financial Services

Overview

Financial institutions and their directors have been the recipients of claims that allege, in various ways, a failure to recognize the need for modern business practices to take account of climate related obligations. In the financial services sector, the most common climate-related claims arise in relation to inadequate or wholly absent climate related disclosures, and a failure to recognize or mitigate against the climate risks posed by both corporate decisions and financial products.

Increasing disclosure obligations

A major area of climate-related claims against financial institutions concerns disclosure of climate-related information based on allegations that companies/directors knew of climate-related financial risks and failed to disclose them, or published misleading information about them. Some claims have included allegations of breaches of fiduciary duties.

- **Australia:**
 - Financial institutions have faced actions for allegedly failing to disclose climate risks in accordance with company law, in annual reports and public statements. For example, a superannuation (pension) fund settled a claim with a customer in relation to access to information and the fund trustees' fiduciary duties on management of climate risks. The TCFD standards were referred to in the application even though they are not yet mandatory and enforceable in Australia. This outcome illustrates the potency of TCFD even while it is not in force.
 - Shareholders in the financial services sector have also been active in seeking company resolutions in relation to disclosures and GHG emissions caused by investments. In one case, they took the company to court to uphold such a resolution that required the company to report on their GHG emissions and other climate-related information. While the case was dismissed, companies have begun to voluntarily disclose this information, in response to public pressure and in anticipation of mandatory reporting requirements.

- Disclosure obligations may equally apply to government lenders. Investors in government bonds, for example, brought a claim against the Australian government over failure to disclose climate change risks to investors in government bonds.

As the TCFD recommendations on climate-related disclosure becomes mandatory in an increasing number of jurisdictions, there is likely to be an increase in cases against financial institutions. However, rather than focus on a lack of disclosure, they will focus on the quality of disclosures and investment decisions made on the basis of this information. The UK financial reporting regulator has already begun to receive complaints relating to the alleged failures of certain companies to make proper disclosures of climate-related risks in their annual reports.

Increasing risk management obligations

Climate change is now widely recognized as a key financial risk that companies must address. In addition to disclosure obligations, directors and fund managers are undergoing scrutiny over their management of climate-related financial risks associated with their decision-making on financial products and investments. Climate litigation, along with changes in regulations and shareholder activism, has raised expectations on all companies to develop and publish their plans for managing climate risks.

The failure to have due regard to climate risks has led to claims of breach of fiduciary duties and of failing to make prudent financial investments.

- **US:** Employees have brought complaints against their company's retirement plan managers for breach of statutory fiduciary duties for failing to have regard to climate risks when investing their pension funds. This includes cases where officers of a company continued to invest in their own stock while aware of the poor prospects of the company, leading to an artificially inflated stock price resulting from the misleading risk disclosures.

REBALANCING LOAN AND INVESTMENT PORTFOLIOS

The market is increasingly demanding sustainable investments that will remain financially prudent as the economy transitions to net zero emissions. Financial institutions will need to review the risk-return model for continuing to loan to or invest in projects with a significant contribution to climate change, such as coal-fired power plants.

In light of the climate impacts of existing financial products and investments, financial institutions are under increased pressure to make commitments in line with emissions targets, including under the Paris Agreement and OECD Guidelines for Multinational Enterprises. Some companies have taken proactive steps to rebalance their portfolios to limit loans and investments in fossil fuel projects in response to campaigns on divestment.

- **Japan:** Japanese banks have faced claims under the OECD Guidelines over their funding of overseas fossil fuel projects which contribute to environmental damage and GHG emissions. It is alleged they failed to urge project sponsors to disclose environmental information and implement measures to mitigate emissions and environmental harm.
- **Netherlands:** A complaint has been brought against a multinational bank for allegedly failing to appropriately commit to emissions targets under the 2015 Paris Agreement and the environmental provisions of the OECD Guidelines. Such cases are aimed at pressuring banks to set targets to reduce emissions caused by financial products in line with the Paris Agreement, and disclosing the emissions output of projects which they have financed.
- **UK:** There has been an increase in shareholder activism focused on motivating banks and other financial institutions to set a business strategy and risk management plan which aligns with the Paris climate goals.



Real Estate

Overview

Real Estate practice in many jurisdictions is heavily influenced by environmental concerns. The need to consider sustainable development and environmental impact at the planning stage can result in claims being brought against developers that are reluctant to accept the need for such measures, due to the likelihood that they will slow development or make it more costly. The extent to which such considerations are required by domestic legal systems varies, but in some jurisdictions the potential impacts of development on climate change have become material considerations for planning authorities in granting or rejecting planning applications.

Whilst the impact of large-scale development and the ever present need to provide homes for people and businesses have undeniable impacts on the natural world and global emissions, developers and property owners up until recently have not had to face the realities of the impact they have on the environment – or the impacts a changing climate will have on their properties. As governments strive to achieve emissions targets under international soft law agreements and to lay down frameworks for sustainable development and protection of their local ecosystems, they pressure real estate developers into innovative and beneficial solutions such as using more environmentally friendly materials in construction and using development methodologies that are less carbon intensive.

Such efforts to curb emissions and reduce the environmental impact of what is one of the most carbon-intensive industries are noteworthy and are often rewarded at government level, for example by awarding planning permissions favorably to developers that have a proven track record of sustainable development. However, this does not prevent those that see real estate developers' efforts as 'not good enough' bringing climate claims. Likewise, property owners have a financial interest in protecting their assets, and in litigation designed to shift the cost of extreme weather events onto insurers or others, instead of onto property owners themselves.

Inevitably, governments have to allow enough development for socio-economic reasons, meaning certain new developments as well as those under older regulatory regimes are not always as environmentally friendly as they could be. This leads to climate litigation that can ultimately delay or even derail development plans, as well as change the scope of proposed developments entirely.

Development delays

Climate change has become an increasingly prominent consideration in planning authority decisions to grant permission for developments. Builders, developers and real estate investors are seeing increased challenges to development proposals which contribute to climate change, particularly in terms of their energy sources, efficiency and management.

- Australia: There have been a growing number of planning challenges in relation to climate change impacts arising from proposed developments in coastal areas, in response to rising sea levels, increased storm severity and changes in flood patterns. Developers must therefore be cautious that any failure to consider climate risks may leave their development proposals open to challenge.
- Canada and the UK: Courts have recognized climate change as a material planning consideration for local planning authorities to take into account, including the GHG emissions caused by the proposal. In the UK, climate change has been used to overturn planning permissions, for example, where a real estate development would block sunlight reaching a neighboring property's solar panels.
- US: Acknowledging the impacts of climate change is an increasingly common requirement for approval of real estate projects. As just one among many examples, the California Court of Appeals recently denied approval to the construction of nearly 500 homes, holding that the real estate developer had failed to show proposed greenhouse gas mitigation measures would comply with California law. Likewise, the Minnesota Court of Appeals required the developer of a proposed motorsports park to redo environmental studies that failed to consider the cumulative effects from greenhouse gas emissions.

More onerous operational requirements

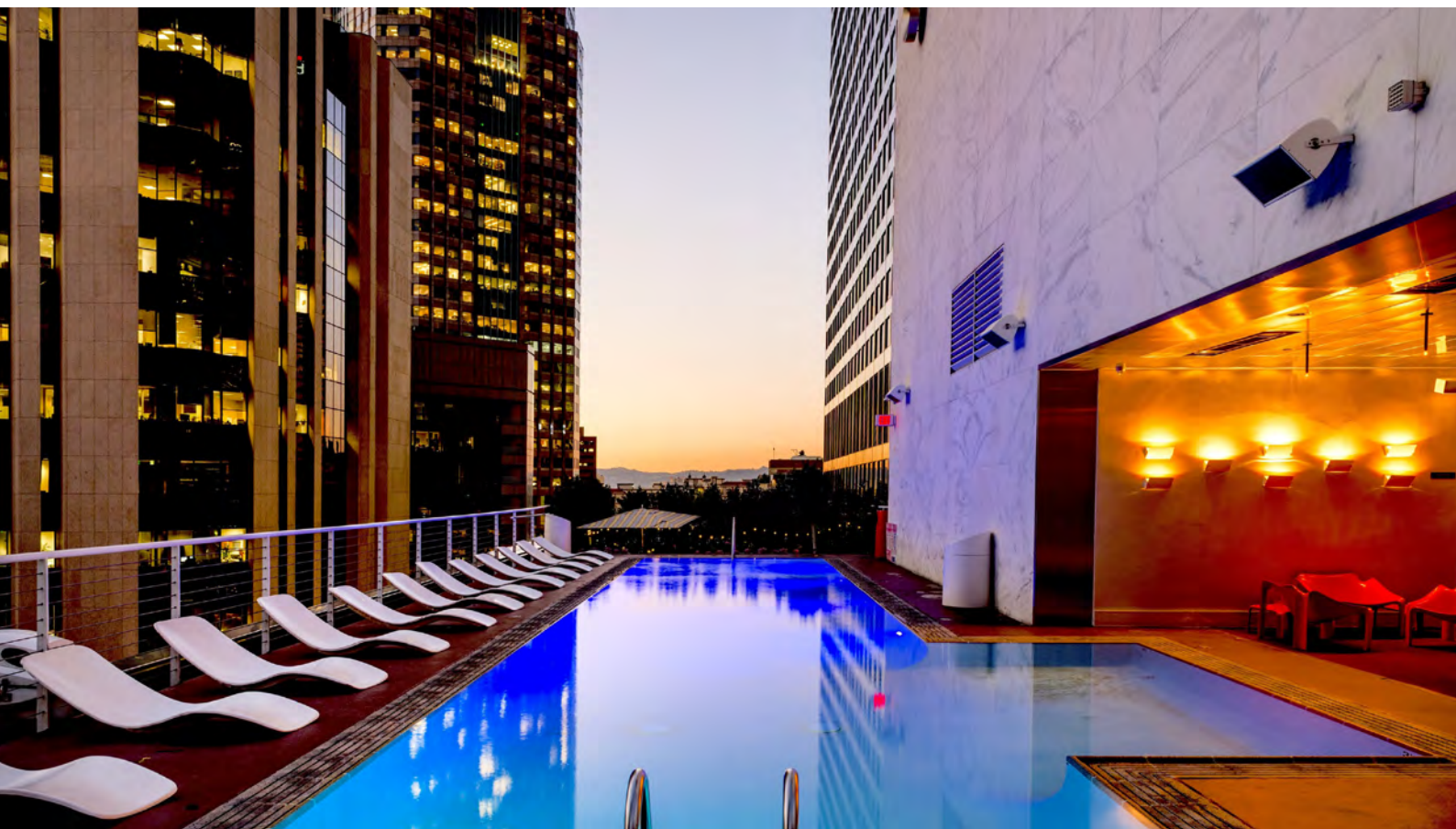
As governments strive to meet international emissions targets under the Paris Agreement, it is likely that companies and investors with large real estate portfolios will be affected by changing laws and building regulations aimed at reducing GHG emissions, particularly in major urban centers, as well as improving adaption to climate impacts such as sea-level rise. Indeed, property owners have already borne the cost of extreme weather events impacted by climate change, leading to an inherent tension with insurers and other sectors affected by climate change.

- **US:** The New York state government has enacted a first-of-its-kind building emissions law, requiring buildings larger than 25,000 square feet to meet emissions caps from 2024. The law aims to require building owners to adopt measures to improve energy efficiency and green building design so as to cut 40% of GHG emissions attributable to large buildings. Failure to do so will be sanctioned with significant fines based on emissions that exceed the stipulated levels; developers must therefore take this into account to avoid punitive measures.
- **US:** Elsewhere, Maryland's highest court approved an insurance carrier's decision to stop issuing catastrophic coverage insurance policies in a "hurricane belt" along the Atlantic Ocean. The Court held that the insurer's decision did not unfairly discriminate against state residents, even though it will have a unique impact on property owners affected by extreme weather.
- **US:** The California Court of Appeals applied an expansive interpretation of legislation requiring employers in the construction industry and other outdoor environments to provide employees with water, shade, and additional training. The Court held that this statute applies not just to open-air workplaces that are entirely outdoors, but also to packing sheds, temporary structures, vehicles, and any other locations "where the environmental protections offered are insufficient to reduce existing environmental risk factors for heat illness."

- **US:** In New Jersey, an appellate court recently recognized that landlords have a duty to provide air conditioning during heat waves, and that tenants can deduct the cost of cooling from their rent.

Addressing the cost of extreme weather events

- **US:** After a heat wave led to the largest wildfire in history of Washington state, a group of 300 property owners filed common law tort claims against a public forest owner. The Court recognized that forest landowners have a duty to exercise reasonable care against the spread of fires but held that this particular defendant was subject to statutory protections for government defendants.
- After air temperatures reached "daily record highs" in New York, a plaintiff filed litigation alleging a festival organizer breached a contractual duty to provide "commercially reasonable" air conditioning. The court ruled in favor of this defendant, since there was no evidence stronger equipment would have prevented the heat wave from causing damages. Nevertheless, landlords are facing an increasing number of claims regarding extreme weather.



Insurance

Overview

The insurance industry engages every other sector of the economy, so it is uniquely exposed to disputes and the other effects of climate change on wider society. As the whole business of insurance is managing risk and driving resilience, insurers find themselves on the frontline of engagement with climate change.

Insurers are impacted from a variety of different angles – as investors, as underwriters of business risk, and as financial services businesses themselves subject to regulation and industry standards.

As businesses with shareholders and other stakeholders, insurers are no different from any other corporate entity facing climate change related exposures. Insurers may therefore find themselves exposed to risks and failings common to corporate entities in other sectors.

Insurers will not be immune from climate risk

Climate litigation and regulatory trends in the wider financial services sector are a good indication of risks for the insurance sector. While there are few cases currently targeting insurers directly, like businesses in other sectors, insurance companies will need to take steps to mitigate climate risks arising in the future.

For example, insurance companies, and their directors, may face challenges from stakeholders as to their own actions and strategy, if these are perceived to be inadequate. In the UK, it is now an FCA requirement that premium listed firms make disclosures in line with guidance published by the TCFD. The PRA has imposed on insurers a deadline of the end of 2021 to establish appropriate governance, risk management and scenario planning tools and disclosure practices.

There is also the reputational exposure associated with a failure adequately to review and, if necessary, change business models. Already, a growing number of insurers are declining to continue to underwrite companies associated with fossil fuel energy projects.

Such trends pose a threat to the viability of some energy producers. This is a response to a variety of factors, including investor and wider societal pressure, but also the increasingly high-profile activities of NGOs, climate activists, and groups such as Insure Our Future, a global coalition of NGOs and social movements, which campaigns to end the facilitation of fossil fuel projects through the provision of insurance and investment. Other sector-focused campaign groups include Insurance Rebellion, part of the Extinction Rebellion network.

As significant investors in other sectors, diminished investment returns – either because of declining assets in primary energy producing industries and other exposed classes, or because of the wider economic impact of climate change – will continue to impact insurers' legal and financial risk profiles.

Exposure to increased policyholder risks

There is no doubt that insurers face a challenge to manage exposure to a potentially significant increase in claims from their policyholders. Natural catastrophe events (or a series of related events) caused by climate change can give rise to very significant market-wide losses across many different types of insurance policies.

Insurers will continue to be exposed to increased losses arising from the **physical risks** of climate change, namely those acute risks arising from extreme weather events and the chronic risks arising from changes in long-term weather patterns, as discussed elsewhere in this Guide. Weather events that were once considered 'once in a lifetime' – such as large-scale floods and bushfires – are becoming more frequent. The Australian bushfires of December 2019 alone cost the industry AUD1.866 billion in insured losses.

It is illustrative of these trends that eight of the top ten costliest insured loss events between 1900 and 2020 have occurred since 2005, and all result from earthquakes, hurricanes, and tsunamis. The costliest of these was Hurricane Katrina in August 2005, costing the insurance industry USD86 billion¹⁶

¹⁴ <https://insureourfuture.co/> and <https://insurancerebellion.uk/>

¹⁵ Perils Losses Market Data <https://www.perils.org/losses>

¹⁶ Figure adjusted to 2020 USD for inflation. Aon, Weather, Climate & Catastrophe Insight – 2020 Annual Report, p. 62 <http://thoughtleadership.aon.com/Documents/20210125-if-annual-cat-report.pdf>

As these exposures increase, the cost to purchasers of insurance is also likely to increase significantly, and some areas, types of business or commercial activity may become 'uninsurable'. This may lead to an increased appetite for litigation on the part of corporates as a route to reallocation of loss.

For insurers, **transition risks** and associated **litigation risks** faced by their policyholders will inevitably result in an increased focus on insurance coverage and claims. As noted elsewhere in this report, exposure to climate-related claims is a reality facing businesses failing to prepare for transition and, certain insured sectors will be of particular interest and concern to insurance underwriters, with increased exposure to claims alleging, for example, negligence, public nuisance, product liability and breach of fiduciary duties. Sectors of particular interest to insurers include Energy & Natural Resources; Infrastructure, Construction & Transport; Industrials; and Consumer Goods, Food & Retail.

There is no doubt that insurers will play a key role in facing the climate change challenge, both in considering their own business strategy and operations and working increasingly closely with their policyholders to support them in mitigating their exposure to climate change related risk and liability.

Insurers are looking to protect themselves from the challenges presented by climate risks in several ways, including:

- integrating physical and transition risks into risk management frameworks – identifying which sectors and geographies give rise to their biggest exposures;
- pricing their policies accordingly, or withdrawing coverage, once such exposures are identified; and
- building risk models to help understand and forecast the impact of climate change on the risks insured, including weather-related disasters.

Regulatory intervention is already promoting financial stability and insurers will need to proactively manage their underwriting risk profiles, innovate, and develop appropriate new products, to mitigate the financial impact of climate change on their businesses and to permit them to continue to play a critical role in the stability and viability of the economy and wider society.



Technology

Overview

While the technology sector has seen relatively few climate-related claims to date, it is likely to become more exposed in the future to legal and regulatory risks, in particular in relation to emissions and energy consumption, sustainable sourcing of raw materials, and climate-related disclosures.

BLOCKCHAIN AND CRYPTOCURRENCIES

Blockchain has given rise to hundreds of cryptocurrencies, as well as influenced other fields such as smart contracts and supply chains.²² The process of mining Bitcoins, however, has been heavily criticized for its high energy consumption and negative impacts on the climate. The current standard process of transaction verification (based on the 'proof-of-work' algorithm) requires an enormous amount of processing power and, therefore electricity, to run its associated computer calculations. As electricity continues to be generated largely from fossil fuels, the increasing use of such technology could counter climate change mitigation efforts.

Studies have estimated Bitcoin's electricity consumption to be between 0.1-0.3% of global electricity use.²³ The Cambridge Bitcoin Electricity Consumption Index concluded that the electricity consumed mining Bitcoin annually exceeds that of Switzerland.²⁴

While these estimates should be interpreted with some level of caution, due to limited data availability and variable conditions across the industry, the sector has responded by proposing environmentally sustainable solutions. Suggestions include swapping the original consensus mechanism (i.e. the 'proof-of-work' algorithm) for other approaches (such as 'proof-of-stake', 'proof-of-authority' or 'proof-of-elapsed-time' algorithms).

Considerations have also been given to switching to greener sources of energy, as well as developing less energy demanding computation. Further, alternative cryptocurrencies have been developed to incentivize the production of green energy. For example, one Solarcoin is created for every Megawatt hour generated from solar technology.

DATA CENTRES

While the adoption of new technologies, like smartphones and wearables, may have slowed down significantly in the last few years, data usage continues to grow at an exponential rate and, as a result, so does the demand for data centers.

Data centers, which house an organization's IT operations and equipment for the purposes of storing, processing, and disseminating data, have recently been in the limelight for their water consumption. Data centers consume water in two main ways: indirectly, through electricity generation (traditionally thermoelectric power); and directly, through cooling. It is estimated that a medium-sized data center (15 megawatts (MW)) uses as much water as three average-sized hospitals, or more than two 18-hole golf courses.²⁵ The annual global energy consumption of data centers is reportedly greater than that of Britain.²⁶

Resource efficiency can be improved through the way that data centers are designed and located. Three of the largest data center providers (Google, Facebook, and Amazon) have looked into purchasing land in jurisdictions where the temperatures are lower, such as Sweden, on the premise that such data centers would use less resources for cooling purposes. Liquid cooling, as opposed to air cooling, is also being implemented and may reduce power consumption by 20-30%.²⁷

²² <https://www.eea.europa.eu/publications/blockchain-and-the-environment/blockchain-and-the-environment>.

²³ IEA, 2019a, 'Commentary: Bitcoin energy use — mined the gap', International Energy Agency (<https://www.iea.org/commentaries/bitcoin-energy-use-mined-the-gap>)

²⁴ CBECI, 2019, 'Cambridge Bitcoin Electricity Consumption Index' (www.cbeci.org)

²⁵ <https://www.wsj.com/articles/data-centers-1435168386>

²⁶ <https://www.independent.co.uk/climate-change/news/global-warming-data-centres-to-consume-three-times-as-much-energy-in-next-decade-experts-warn-a6830086.html>

²⁷ <https://www.techerati.com/features-hub/opinions/2021-the-year-of-the-sustainable-data-centre/>

Finally, the industry has responded by using (where possible) recycled and non-potable water. For example, Google's Hamina data center in Finland has used sea water for cooling since it opened in 2011.²⁸

Limiting emissions-intensive operations

Large technology companies have been under scrutiny for sourcing energy from fossil fuels and producing high quantities of GHG emissions in the production cycle. This criticism extends to major cryptocurrencies, which are among the top energy consumers in the world. As global demand for these technology products increase, companies that fail to switch to renewable energy sources and reduce their carbon footprint could face claims or regulatory action in relation to their contribution to overall emissions.

- **Norway and US:** Regulators have taken action against cryptocurrency mining farms by removing/ reducing electricity subsidies or imposing new electricity pricing structures to motivate operational changes. This was done on the basis that cryptocurrency related activities use exceptionally high levels of electricity to power their networks.²⁹

Mandating innovation in product development

Technology companies also face complaints in relation to the sustainable sourcing of materials used in the production process for certain consumer products – for example, the mining of rare earth metals such as copper, lithium and cobalt for use in electric vehicles, batteries and smartphones. Companies looking to improve their ESG ratings and market position are seeking more sustainable alternatives for these components. Further, whilst the drive to electric vehicles

continues, there is a significant concern that in countries with high adoption rates, such as China, the power mix remains fossil fuel driven, therefore arguably negating any ecological savings in the switch from fuel-powered to electric vehicles. Misrepresentation of green credentials presents a significant litigation risk for such businesses.

Another climate-related trend in the technology sector is the move towards applying circular economy principles to product development. Some technology companies produce non-recyclable e-waste or even hazardous waste, which bears the risk of tort-based lawsuits or regulatory sanctions. For example, a recent report concluded that one bitcoin transaction generates 272 grams of e-waste and that the e-waste from all crypto transactions per year is comparable to that produced by a country the size of the Netherlands.³⁰

- **USA:** Legal complaints have been launched against companies in the technology sector for failing to prevent children being killed or maimed whilst mining for the cobalt required for smartphones and electric vehicles, as part of their supply chain. Damages have been also been sought for forced labor, unjust enrichment and negligent supervision.³¹
- **Italy:** Technology companies have faced significant fines for the planned obsolescence of products (such as smartphones) and encouraging the purchase of new products without regard for their environmental impact. This is reflected in the eco-design laws being rolled out across Europe, giving consumers a 'right to repair' their electronic goods. Such regulatory changes have compelled manufacturers to create products that last longer.³²

²⁸ Judge, P. Google to invest \$670m to build a second data center in Hamina, Finland. [https://www.datacenterdynamics.com/en/news/google-invest-670m-to-build-second-facility-hamina-finland-/\(2019\)](https://www.datacenterdynamics.com/en/news/google-invest-670m-to-build-second-facility-hamina-finland-/(2019)).

²⁹ <https://www.forbes.com/sites/billybambrough/2018/11/21/blow-to-norways-bitcoin-industry-as-miners-subsidies-suddenly-scrapped/?sh=342d09ea43a6>.

³⁰ <https://www.independent.co.uk/life-style/gadgets-and-tech/bitcoin-ethereum-waste-proof-work-piano-b1922240.html>

³¹ <https://www.theguardian.com/global-development/2019/dec/16/apple-and-google-named-in-us-lawsuit-over-congolese-child-cobalt-mining-deaths>

³² <https://www.politico.eu/article/italy-hits-apple-samsung-with-fines-over-planned-obsolescence/>

Media, Sport & Entertainment

Overview

Media, Sport & Entertainment (**MSE**) has traditionally been seen as a sector that is less impacted by climate change, with challenges limited to discrete areas such as the use of fossil fuels in motor sport or waste, plastic and recycling issues for newspapers and live events. However, closer analysis reveals that the sector faces a number of less obvious but highly significant challenges.

The growing digitalization of the sector and the exponential creation of data means higher energy usage and an increased carbon footprint – the cost of which is likely to be exacerbated by the likely introduction of carbon tax mechanisms. Data centers and their impact on the environment is an area of increasing focus, but the same is also true of production shoots, live tours, sports events, video streaming and online video games. Higher energy usage for companies in the sector leads not only to increased energy bills, but also reputational issues as the sector comes under greater scrutiny and governmental regulation.

There are other reputational risks facing MSE companies. For example: those running PR and communications for oil and gas companies; sports franchises that are sponsored by banks financing fossil fuels; or those publishing or broadcasting content on sensitive environmental and science-based issues who must constantly be aware of the potential for defamation or misrepresentation claims should that content prove to be inaccurate. By way of example, a recent report¹⁷ highlighted that 13 sports across the globe feature 258 sponsorship deals with companies promoting high carbon products, services and lifestyles, with football being the main culprit with 57.¹⁸

In fact, there is a perception amongst the public that, due to their role in creating and shaping the content that we consume, companies in the MSE sector have a duty to “lead the way” in fighting climate change. Fulfilling that perceived duty might involve putting climate change at the top of the agenda on news channels, requiring that organizers of music and sports events use their platforms to raise awareness, or even refuse to provide services to clients who fail to meet certain sustainability criteria.

Climate-related claims against companies in MSE are as diverse as the sector itself. MSE companies (including sports franchises and leagues, media outlets, advertising agencies, publishers and film/broadcasting studios) have traditionally focused on the social and governance aspects of ESG (such as corruption, competition, discrimination and diversity issues). However, increasingly, their environmental sustainability and responsiveness to climate change are coming to bear on their market position, profit and access to capital. Further, as a public-facing sector, meeting public concerns on climate change is particularly important for retaining a social license to operate, and public claims or complaints for failing to take climate action could severely compromise brand image.

Misrepresentation of green credentials

Complaints of false green advertising or misrepresenting green credentials, particularly in the sports and advertising sectors, could carry significant reputational risks and undermine company performance.

Competition regulators have challenged inaccurate and misleading climate-related representations, for example, that a motorsports company was offsetting carbon emissions by planting native trees. Courts in such cases can order the company to comply with trade practices laws and to ensure that future green marketing schemes have a higher degree of transparency and avoid misleading the public.

Reputational risks of association

Companies in the MSE sector face significant reputational risk arising out of their ‘associations’ – e.g. an advertising agency that faces public backlash for working with oil and gas companies to ‘greenwash’ their image, or a sports team that receives criticism for being sponsored by a company contributing significantly to climate change and pollution.¹⁹ These risks threaten to undermine company performance but also open the door for disputes if ‘bad publicity’ associations are terminated in breach of contract.

¹⁷ <https://www.rapidtransition.org/resources/sweat-not-oil-why-sports-should-drop-advertising-and-sponsorship-from-high-carbon-polluters/>

¹⁸ <https://www.sportspromedia.com/news/sports-sponsorship-sportswashing-high-carbon-climate-change-study/>

¹⁹ For example, see the protests and publicity campaign against Liverpool FC in response to their sponsorship by Standard Chartered (<https://www.theguardian.com/uk-news/2021/may/11/activists-target-standard-chartered-from-all-sides-over-fossil-fuel-links>).

Limits on new and existing operations

Climate-related claims can be brought to reduce the environmental impact of business operations in the MSE sector. In particular, production companies, film studios²⁰ and large international sporting events face pressure to address the environmental impact of their productions, including limiting GHG emissions from global travel, improving energy efficiency and managing waste.²¹ Failure to make these operational changes may result in litigation or sanction for breach of environmental regulations, as has already been seen in other sectors.

- **Australia:** Government authorities have fined broadcasting and film production companies for unlawfully allowing toxic waste to pollute waterways in the course of production. The production companies were accused of intentionally causing the chemicals to enter into the water systems. Punitive fines have been imposed as well as penalties to cover the costs of environmental remediation.

²⁰ For example, films with budgets over USD 70 million produce an average of 2,840 tonnes CO₂-eq, which is roughly equivalent to the amount absorbed in a year by 3,700 hectares of forest (<https://www.theguardian.com/film/2020/sep/02/bfi-study-calls-on-film-industry-to-urgently-reduce-emissions>).

²¹ For example, football's European Championships in 2016 produced a carbon footprint of 2,825,000 tonnes CO₂-eq, with roughly 1,000 tonnes CO₂-eq being the footprint of the average European (<https://www.lawinsport.com/topics/item/how-green-is-the-beautiful-game-an-overview-of-environmental-regulation-in-football> ; <https://www.euractiv.com/section/health-consumers/infographic/whats-footballs-carbon-footprint/>).



Life Sciences

Overview

The intensive extracting and manufacturing of chemical products and the development of complex medical devices, common activities in the Life Sciences sector, can be carbon-intensive processes, particularly on the scale required to ensure access to healthcare and to meet demand. Beyond this, the supply, distribution and waste processing required to provide the consumer with medicine is inherently carbon-intensive.

Operationally, the environmentally damaging practices used to obtain chemicals and components for medicines and the mass production of medicines requiring large, resource intensive and geographically expansive production lines further contribute to the sector's emissions. Such processes, as those observed in other sectors, are undoubtedly sources of major discomfort for the environmentally conscious, and therefore provide a basis for climate related claims and complaints.

As with any sector that deals with chemical components, the risk of pollution and inorganic substances leaching into the natural environment is also a major concern. Pharmaceutical companies that do not observe best practice in their control and disposal of such substances have been a focal point for claims in the Life Sciences sector, with claimants often relying on public harms and environmental regulations to force defendants to clean up their supply chains and business activities. Similarly, disposal of personal protection equipment, the management of used medical devices (for instance, radiation therapy) and cleaning processes remains areas of specific concern.

Limiting manufacturing activities and the cost of doing business

Companies in the Life Sciences sector, particularly those involved in chemical manufacturing and carbon-intensive activities, may face claims for failing to address environmental damage caused by their operations (similar to claims involving the Industrials and Energy & Natural Resources sectors) and be required to take costly remedial action. While environmental pollution and toxic torts have been a key area of litigation risk in Life Sciences, there are expected to be a growing number of cases specifically in relation to climate-related impacts.

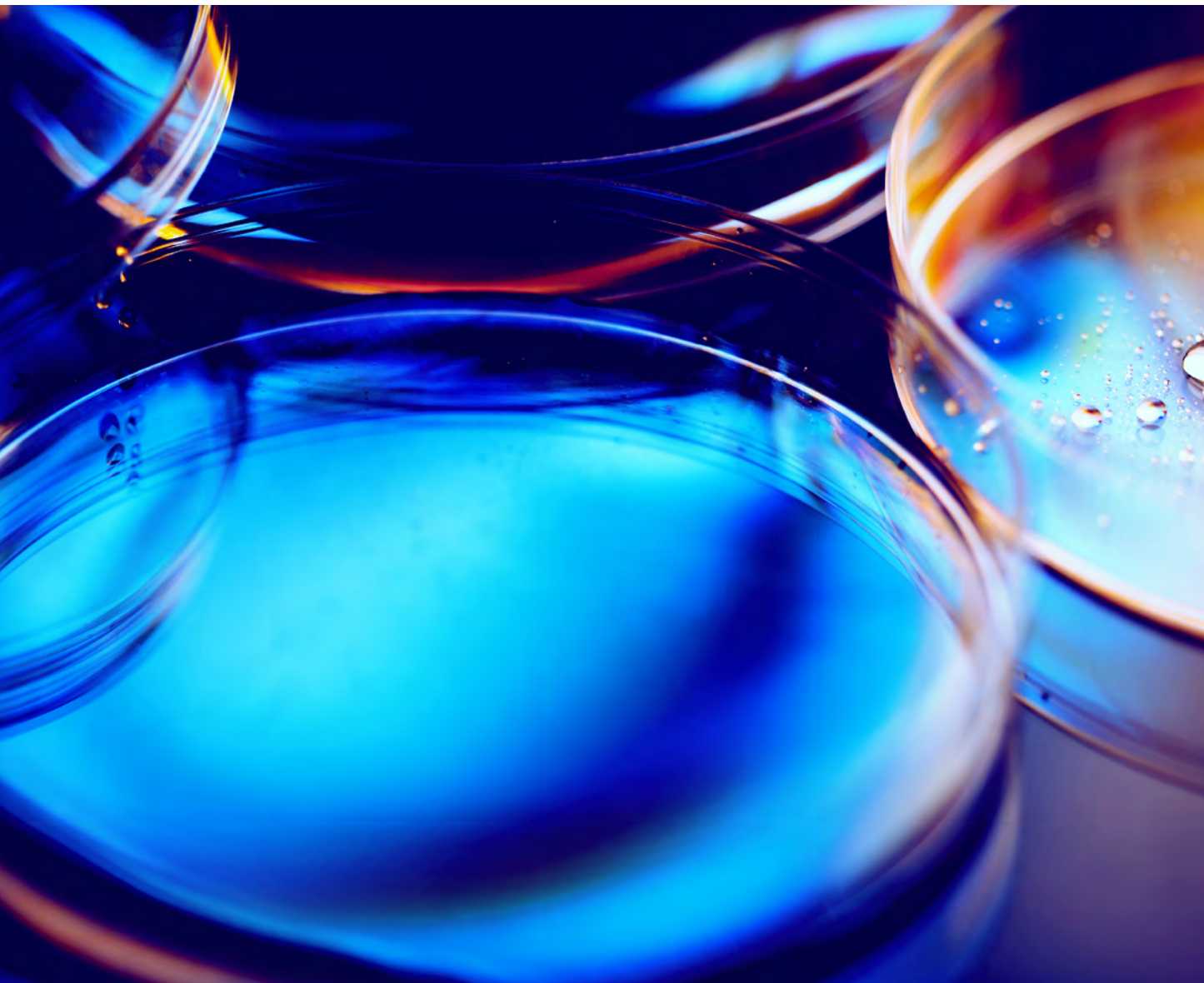
- **US:** Pharmaceutical companies have been targeted in actions in relation to water contamination and damage to wildlife and habitats caused by chemical compounds (such as polychlorinated biphenyls). Actions include negligence claims, public nuisance claims, class actions and state prosecutions. Some cases have been brought decades after contamination was first detected and have resulted in remediation orders to clean waterways. Similar to the cases against fossil fuel companies in relation to GHG emissions, arguments have been raised that pharmaceutical companies knew of the dangers of these compounds but failed to warn of the risks to the public, and have therefore opened themselves up to environmental claims.
- **India:** Multinational pharmaceutical companies which outsource manufacturing to India have faced cases brought by NGOs to challenge groundwater pollution resulting from the manufacture of pharmaceuticals. Such cases highlight the importance of addressing supply chain and outsourcing risks and adhering to local environmental laws as well as international best-practice standards when conducting business.

Limiting product development

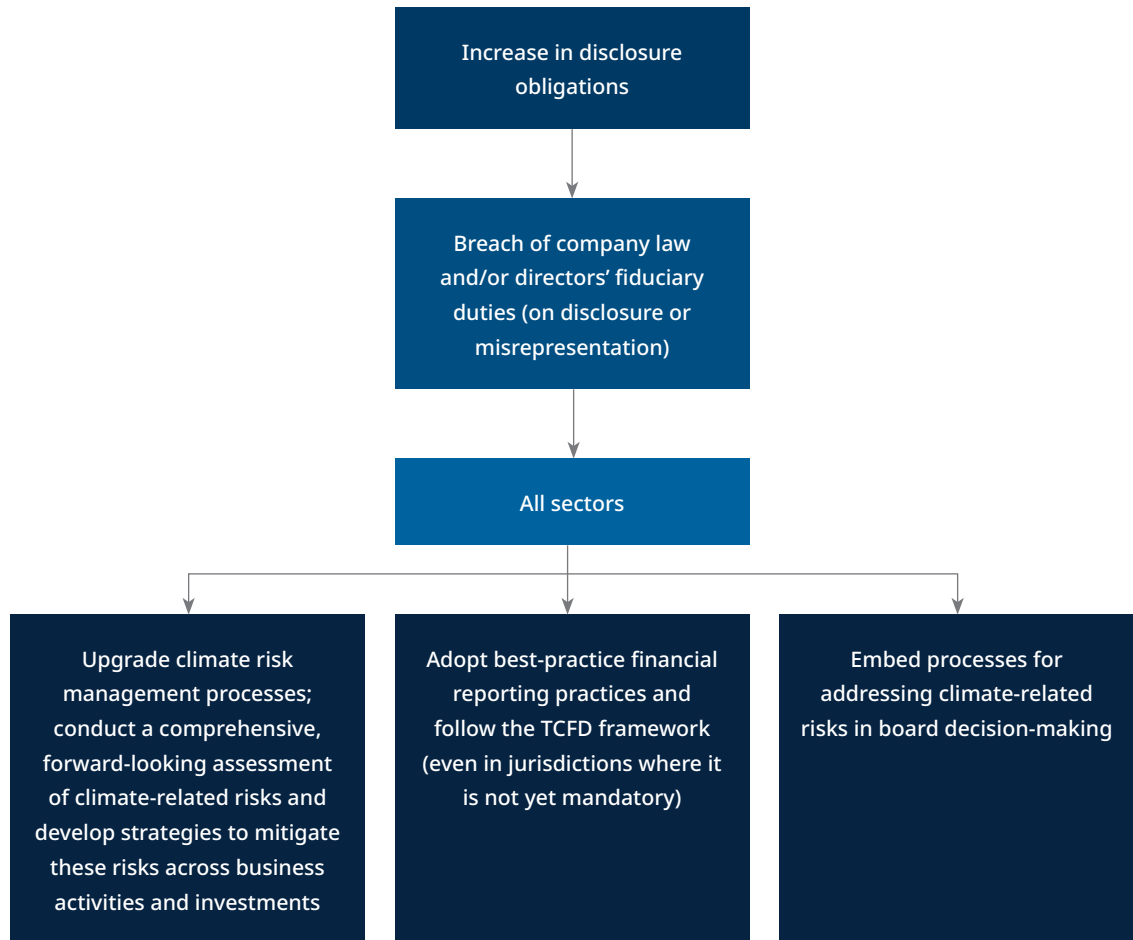
Investors and shareholders are demanding greater transparency across product life-cycles, and are increasingly scrutinizing companies' sustainability practices in product manufacturing and associated climate impacts such as GHG emissions, as well as wider environmental impacts such as recycling and disposal of hazardous waste.

- **UK:** Pharmaceutical companies have faced legal action or agreed to costly settlements in relation to violations of environmental regulations on broader sustainability issues, for example, on recycling, waste management, production methodologies and packaging. Packaging itself is already heavily regulated to ensure health and safety compliance.

- **North America and Europe:** There are a number of examples in North America and Europe of litigation relating to hazardous waste disposal from healthcare facilities. Hospitals and other care facilities (such as aged care providers) generate tonnes of waste each year. The toxic, resource intensive and sometimes infectious character of healthcare waste is both an environmental and public health threat. In addition to the disposal of waste containing highly toxic chemicals in landfill, the burning of medical waste in particular generates significant greenhouse gases. There are a number of Green Hospital initiatives underway in the developed world to develop non-burn disposal technologies, reduce the reliance in hospitals on toxic products, and otherwise reduce the environmental impact of modern healthcare.



Emerging trends



TREND	POTENTIAL CLAIMS	KEY SECTORS	ACTIONS FOR BUSINESSES TO CONSIDER
<p>Increase in disclosure obligations – including adoption of mandatory TCFD standards for disclosure of climate-related financial information and risk management</p>	<p>Breach of company law and/or directors' fiduciary duties on disclosures</p> <p>Complaints to the National Contact Point under the OECD Guidelines for Multinational Enterprises</p>	<p>All – especially Financial Services and Insurance</p>	<p>Embed processes for addressing climate-related risks in board decision-making</p> <p>Upgrade climate risk management processes; conduct a comprehensive, forward-looking assessment of climate-related risks and develop strategies to mitigate these risks across business activities and investments</p> <p>Adopt best-practice transparent financial reporting practices and follow the TCFD framework (even in jurisdictions where it is not yet mandatory)</p>
<p>Improvements in climate science, allowing attribution of outcomes to specific inputs (causation)</p>	<p>Tortious liability claims based on failure to prevent foreseeable risks</p> <p>Challenges to projects under environmental protection laws</p> <p>Claims seeking to impose GHG emissions reduction targets based on constitutional, environmental or human rights laws</p>	<p>Energy & Natural Resources</p> <p>Industrials</p> <p>Infrastructure, Construction & Transport</p>	<p>Review existing knowledge of causal links, and take mitigating action now</p>
<p>Increased regulatory burden (in part driven by claims against governments)</p>	<p>Regulatory enforcement action</p> <p>Investment treaty arbitration</p>	<p>All</p>	<p>Utilize existing compliance frameworks, whilst understanding that new challenges will involve some change to methodology</p>
<p>Marketing products with environmental claims</p>	<p>Misrepresentation and fraud claims</p> <p>False advertising (civil and criminal sanctions)</p> <p>Unjust enrichment claims</p>	<p>Consumer Goods, Food & Retail</p> <p>Media, Sport & Entertainment</p> <p>Energy & Natural Resources</p> <p>Industrials</p>	<p>Put in place robust data collection and monitoring schemes (including supply chain monitoring) to back up claims</p> <p>Review alignment between public statements and processes for implementation of policies</p> <p>Given the scientific and technical basis underpinning claims of green credentials, companies making green claims should ensure there is an evidential basis for such statements</p>

TREND	POTENTIAL CLAIMS	KEY SECTORS	ACTIONS FOR BUSINESSES TO CONSIDER
Greater awareness leading to investor and shareholder activism	<p>Company law claims by shareholders seeking to uphold or challenge resolutions</p> <p>Breach of directors' duties</p> <p>Minority shareholder actions</p>	<p>Energy & Natural Resources</p> <p>Industrials</p> <p>Financial Services</p> <p>Insurance</p>	<p>Review board composition and expertise</p> <p>Have a clear corporate purpose, communicate this, and use this to shape corporate policies and implementation</p>
Accountability for resilience to climate impacts	<p>Challenges to projects or government approvals under environmental planning laws</p>	<p>Real Estate</p> <p>Energy & Natural Resources</p> <p>Industrials</p>	<p>Maintain open dialogue with planning authorities in relation to climate-risks and collaborate to gather data and find solutions which account for foreseeable climate impacts</p> <p>Undertake a comprehensive assessment of both physical and transitional climate risks and integrate adaptation measures into development proposals</p>
Scrutiny of the whole life cycle of product development, including sustainable sourcing	<p>Regulatory action</p> <p>Civil cases seeking compensation for environmental harm (including supply chain litigation)</p>	<p>Technology</p> <p>Industrials</p> <p>Consumer Goods, Food & Retail</p>	<p>Examine partnerships and supply chains and consider and implement alternative, sustainable options for product development</p> <p>Implement circular economy principles</p>
Greater awareness and availability of alternatives to high-emitting assets	<p>Challenges to projects under environmental planning laws</p> <p>Judicial review of government decisions</p> <p>Securities risk</p>	<p>Energy & Natural Resources</p> <p>Industrials</p> <p>Infrastructure, Construction & Transport</p> <p>Real Estate</p>	<p>Consider the full impact of your asset and any mitigating activities or alternatives at the planning stage</p> <p>Plan in contingencies as science and understanding develop</p>
Campaigns for divestment from fossil fuels and other carbon-intensive activities	<p>OECD complaints</p> <p>Shareholder activism</p>	<p>Financial Services</p> <p>Insurance</p>	<p>Ensure financial products and investments are aligned with your overall strategy and plan for meeting climate targets, with reference to the OECD Guidelines</p> <p>In project financing, conduct due diligence of climate-related risks and opportunities</p>

TREND	POTENTIAL CLAIMS	KEY SECTORS	ACTIONS FOR BUSINESSES TO CONSIDER
Adoption of voluntary standards in corporate policy statements	Parent company/tortious liability for breach of duty of care	All	Review alignment between public statements and processes for implementation of policies
Incorporation of climate-related targets or KPIs into contractual frameworks	Commercial disputes around whether standards have been met (calling on indemnities)	Industrials Consumer Goods, Food & Retail Real Estate Life Sciences	Adopt science-based targets (in relation to emissions, align with the Paris Agreement) Tailor contractual clauses and include clear delineation of responsibility

Resources and key contacts

DLA Piper's Sustainability and ESG advisory offering provides integrated expertise on sustainability and ESG issues for clients in the transition to a sustainable, zero-carbon future. To learn more about climate litigation risk profiling for your business and our other sustainability advisory services, [contact our sustainability and ESG leaders](#).

Find below links to our SESG and Class Actions webpages which contain related publications and insights:

[Sustainability and Environmental, Social and Governance](#)

[Class Actions](#)



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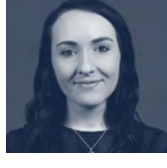
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