

A person with a backpack is climbing a rocky peak against a blue sky. The person is silhouetted against the light sky, and the rocks are dark. The overall scene is one of a hiker or climber in a natural, outdoor setting.

— THE ABC'S OF THE TCFD —

Learn how to build a resilient
business in a rapidly changing
carbon economy.

Co-Authors:

MERYL SUKUMAR &
DR KATE RINGVALL

MERYL SUKUMAR



Meryl is an accomplished strategic and technical expert with over a decade of experience working on complex energy (renewables) and sustainability projects. She has refined expertise in process and system optimisation to reduce energy, resources, and carbon emissions to lower impact and costs. Her quick strategic thinking, management, and integration of sustainable frameworks build resilience and lower operational risk in the long term.

Meryl has worked within the boutique and global advisory/consulting firms for various clients, including commercial, manufacturing (food), industrial (water, power) and governmental organisations from councils to Australian Defense.

As a successful technical and strategic entrepreneur with experience in climate change services, she effectively communicates complex problems across and up the spectrum, with assertive negotiation skills to bring clients and leaders along the journey.

Eager for further development, always seeking to tackle today's social and environmental problems for a cleaner and more sustainable future.

Dr Kate is a 'Solutionary' and is motivated by compassion and justice and driven to cultivate her multiple 'creative, critical, strategic, and systems-thinking skills to address the underlying causes of entrenched and interconnected problems.

From a feral childhood holidaying in some of WAs most pristine places like Shark Bay and Walpole to having a light bulb moment in an Environmental Ethics lecture at Murdoch University as an undergraduate.

Dr Kate's sustainability journey started young and has traversed sustainability and now circular economy in all its facets.

DR. KATE RINGVALL



COLLABORATION

Dr Kate Ringvall and Meryl Sukumar have built a flourishing working relationship. From an initial live discussion about "Sustainability Practitioners – Staying Focused & Committed to Act!" on Meryl's live show [FemGineer Chats](#). To identify and respond to collaborative tender opportunities and build a professional partnership between their respective businesses. While the working arrangement has transformed further since then, they have maintained their collaboration on this EBook to spread a message of clarity and opportunity for companies who want to bypass all the jargon to understand the risks, impacts, and opportunities in the Australian context.

WHY WE WROTE THIS EBOOK

This book was intended for decision-makers to help them reduce risk and build resilience through aligned climate action. In a highly disruptive market, understanding the TCFD and how to apply it in a consciously competitive way is imperative if your organisation wants to thrive and stay relevant in a dynamic economy.

The book will help you navigate the common risks and financial impacts from adverse climate events along with the opportunities/action to overcome these hurdles positively. By reading the book and combining the bonuses content and activities, you can take those first steps to effectively flatten your risk curve and adopt new ideas to level up your operations and competitive edge in the market.

The momentum and action on climate-related problems have gained enormous speed, despite the Pandemic and the incredible disruption to the way we live our life. The massive support for transformative COP26 discussions and driving a climate vote across global elections highlights how essential it is to effectively move money through our economy. To leverage finance in a way that reduces climate risk and drives opportunities to overcome climate change.

Our guide, ***The ABCs Of The TCFD***, will help you navigate these complicated ideas and provide some clarity on how to proceed in a disruptive market. To prepare, position and overcome dynamic industry and market shifts with ease and grace.

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➤ Executive Summary

Australian companies are stepping into a highly dynamic era of economic disruption and new working models that garner financial, environmental, and social value in alignment with diligent climate operations. **The ABCs Of The TCFD** is a contemporary guide on the top risks, economic impacts, and opportunities for your company to successfully mitigate risk (transitional & physical) and embed climate diligence into all areas of operations.



The public perception of corporations and businesses creating a more climate-aware and active market is rapidly growing. This means all types of organisations need to accurately identify the risks to their organisation centered around climate change. Knowing these risks will improve awareness and cognisance of the resulting financial impacts that stem from such risks—ultimately providing clarity on which problems and hurdles the organisation will need to overcome and the opportunities to resolve this dynamic obstacle.

The market is becoming more transparent and exposed to public perception and scrutiny, so we see a massive shift into a people-led economy. As such, general inaction or lack of diligence around essential issues such as climate change, i.e., a lack of sustainable action around social and environmental impacts, is reputational and legal risk.¹ Some of which are significant cases with enormous reputational and financial exposure to the organisation's ongoing operations. Furthermore, a reason to take aligned and informed action on climate change with a direct view of the financial risk impacts is that economics is pivotal in all markets and organisations.

¹ <https://www.asx.com.au/documents/asx-compliance/gia-climate-change-guide.pdf>

This modern-day guide to climate risk will navigate the following topics:

1. Top Three Risks - Governance, Strategic, Physical
2. Top Three Financial Impacts - Financing, Insurance, Corporate Exposure and finally,
3. The Top Three Opportunities - Resource & Energy Efficiency, Products & Services, Resilience

We have included some bonus content on the common misconceptions by organisations during their risk-assessment and disclosure deliveries. Including bonus freebies, such as an easy-to-follow activity and post-implementation tool to help you get started on your strategic plan and risk management framework and action. The following three bonuses will get you started and take your decision-making and action to another level:

1. Top 3 Misconceptions – What mistakes organisations often make when disclosing under the TCFD
2. 50+ Opportunities To Overcome Climate Risk – to reduce and overcome risks associated with adverse climate impacts
3. Measurement & Verification Tool - Quantify Energy & Resource Savings – Using our Measurement and Verification (M&V) Tool

➤ About Us



We are a unique collaboration of two small consultancies to harness our skills and experience to provide a holistic, client-focused service to businesses and organisations wanting to take responsibility for their climate impacts. We are experts in sustainability and the circular economy. We are poised to bring our service to you to help your business or organisation reduce your carbon impacts and be part of the solution rather than the problem!



OUR COMBINED EXPERTISE OFFERS A HOLISTIC UNDERSTANDING OF A SUSTAINABLE CIRCULAR ECONOMY.

We facilitate a complete picture of your organisational needs, from a comprehensive **technical baseline** to a **strategic framework** with the roadmap of **opportunities** to embed transparent and **accountable** sustainable action. Our services can help you achieve your sustainability goals in a way that contributes to your bottom line, improves your resilience, and leads to genuine and lasting change!

To commemorate and celebrate our partnership, we have developed this FREE E-Book to demystify the core areas of risk to your operations and prevent economic downturn when faced with climate disasters and events.

➤ Introduction



The world has changed. There's more risk to account for. Resources and supply chains are straining to adapt to a changing climate; constraints brought about by the Global COVID19 Pandemic and the changes that are starting to filter through following Modern Slavery legislation being adopted in several countries. Businesses are aware that they are vulnerable to the impacts of these risks but are less sure of what they can do about it.

If businesses ignore these growing risks and continue with their business, as usual, they will begin to meet the adverse outcomes of that decision very soon. In the same way, Australia will also start to feel the impacts of not reducing their carbon footprint, in the global context, through increasing carbon border taxes being placed on exports from Australia. Already we know that the impact of scarce resources on product value and supply chains has an enormous effect on the bottom line of any business. When you add the complexities of a rapidly warming climate, the risk of reduced returns is genuine.

*"Compounding the effect on longer-term returns is the risk that present valuations do not adequately factor in climate-related risks because of insufficient information. Investors, lenders, and insurance underwriters need adequate information on how companies are preparing for a lower-carbon economy. More effective, clear, and consistent climate-related disclosure is needed from companies around the world."*²

This guide will help businesses of any size understand the risks becoming more apparent and urgent in light of the changing climate. It will provide tangible, workable examples of what companies can do to limit their risk in this climate of uncertainty.

² https://assets.bbhub.io/company/sites/60/2020/10/TCFD_Booklet_FNL_Digital_March-2020.pdf

WHAT IS TCFD?



3

In response to the 2008 economic crisis, the major global economies decided to collaboratively establish the G20 - the forum where international Finance Ministers and their nation's central bank Governors discuss current issues. Following that, when the Paris Agreement was ratified in 2015 to set a global carbon budget and revise the United Nations member states' commitments to responding to climate change, the conversation around finance and risk between the G20 and the Financial Stability Board (FSB) rapidly expanded. As a result, in December 2015, The FSB established the Task Force On Climate-Related Financial Disclosure (TCFD)⁴.

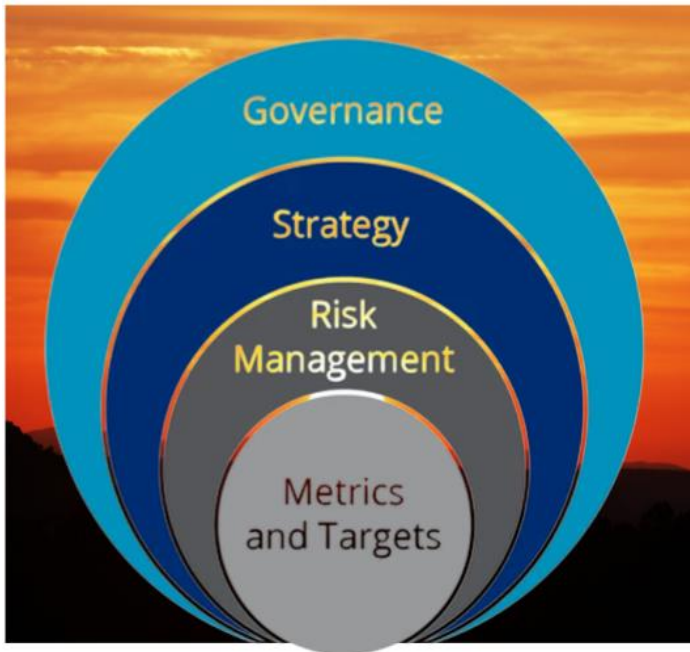
The Taskforce on Climate-related Financial Disclosures has established clear guidelines for reporting action in your business, including your organisation's processes for identifying, assessing, and managing climate-related risks. The critical element to help your organisation integrate a clear and transparent pathway of overall risk management.

The TCFD ultimately demystifies organisational risk and its impacts on finance to identify optimal opportunities for overcoming these hurdles. The TCFD structures its disclosure process around four core elements including:

1. Governance
2. Strategy
3. Risk Management and
4. Metrics and Target

³ <https://www.fsb-tcfd.org/about/>

⁴ <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf>



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GOVERNANCE

The board's oversight of climate-related issues, organisations should consider including a discussion of the following:

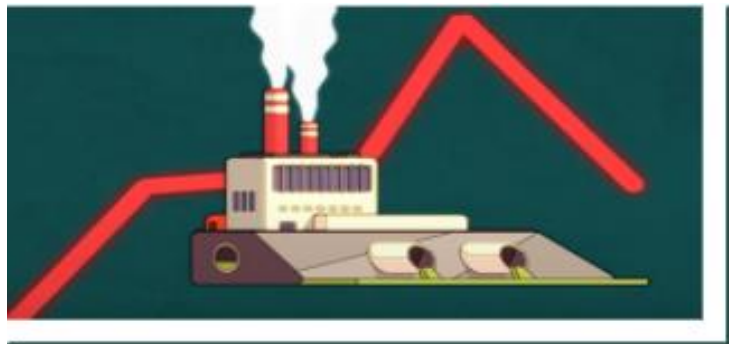
- Processes and frequency by which the board and/or board committees (e.g., audit, risk, or other committees) are informed about climate-related issues.
- Whether the board and/or board committees consider climate-related issues when reviewing and guiding strategy, significant plans of action, risk management policies, annual budgets, and business plans, as well

as setting the organisation's performance objectives, monitoring implementation and performance, and overseeing major capital expenditures, acquisitions, and divestitures, and

- how the board monitors and oversees progress against goals and targets for addressing climate-related issues.
- In particular, the TFCFD recommends considering the board's oversight of climate-related risks and opportunities and understanding management's role in assessing and managing risks and opportunities.

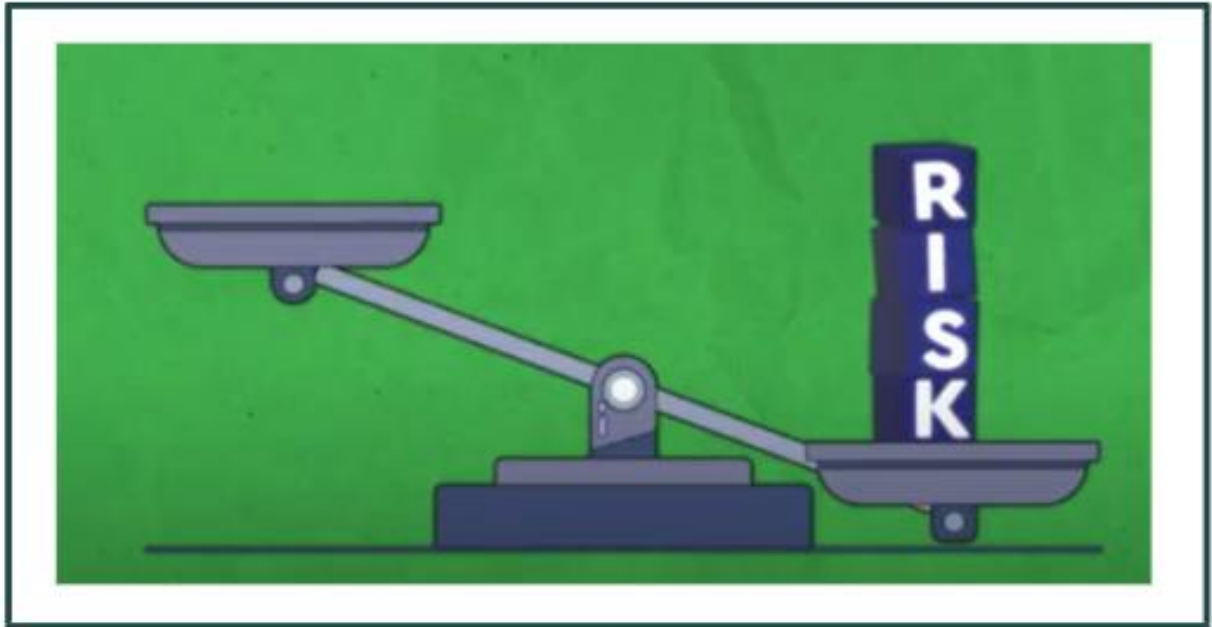
STRATEGY

The decision-making framework, which guides the flow of money, operations, internal procedures, market adaptation, and so much more, is critical to the organisation's strategic direction, to identify:



- How climate-related risks are identified over short, medium, and long-term periods?
- The impact of climate-related risks on the organisational strategy and, therefore, financial capacity and stability.
- How effective is risk-planning under various climate-change scenarios? This is an essential strategic question which the TFCFD recommends considering.

⁵ <https://www.fsb-tcfd.org/about/>



RISK MANAGEMENT

To continue financing projects & ensure company operations & integrity.

- The Task Force has divided climate-related risks into two major categories: (1) risks related to the transition to a lower-carbon economy and (2) risks related to the physical impacts of climate change. Efforts to mitigate and adapt to climate change also produce opportunities for organisations, for example, through resource efficiency and cost savings, the adoption of low-emission energy sources, the development of new products and services, access to new markets, and building resilience along the supply chain. Climate-related opportunities will vary depending on the region, market, and industry in which an organisation operates.
- The TCFD recommends that the organisation consider and improve how they identify, assesses, and manages climate-related risks.

METRICS AND TARGETS

Providing transparent and accountable management of the pre- and post-implementation risks and opportunities to the organisation

- Clarity on which metrics are used to assess the climate risks within the strategic and risk-management procedures.
- Full emission disclosure on all scopes (1, 2, and 3) along with related risks.
- Clarity and comparison of the organisational targets to the actual achievements around GHG mitigation.



There are many benefits to considering the climate-related risks and opportunities for your organisation. First, there are direct economic benefits in cost returns and savings, alongside resilience building, lowering risk profiles, community and internal values alignment, and reputational improvements.

Additionally, it has become evident that current policy and legal developments highlight that a 'climate due diligence' is beginning to take precedence as an explicit aspect of countries and corporations' already well-understood human rights due diligence (HRDD) obligations. So, there is often a corporation's mandate/legislation that organisation is climate-diligent in their decision-making, i.e. The Corporations Act, Australia⁶.

With these legal shifts at a policy level, there is a growing number of climate change-related lawsuits that will eventually have significant legal outcomes, although still comparatively new and small in number. These lawsuits are increasing in frequency worldwide and are leading the way for new and creative legal opportunities.⁷ However, they represent a risk to businesses if they choose not to deal with their climate-related responsibilities.

⁶ <https://asic.gov.au/about-asic/news-centre/speeches/climate-change/>

⁷ <https://www.asx.com.au/documents/asx-compliance/gia-climate-change-guide.pdf>

➤ Top 3 Risks



Ultimately most peak authorities and governing bodies have considered the top critical risk categories as either physical or transitional. Physical refers to temperature and sea-level rise and its impacts on assets, operations, and people. In contrast, the transitional risk is the ongoing impact on law, policy, the market, consumers, and the community.⁸ To clarify the nuances of these risk components, we have further broken down the top risk categories to cover Governance (transitional); Strategic (transitional and physical) and Physical risk itself.

GOVERNANCE RISK

Climate governance is the term used to describe the rules and strategies that a company or organisation might adopt to manage the risks associated with climate change⁹. Of course, most of the risks (for businesses) associated with a changing climate are financial in origin. Still, there is also a growing understanding of the OH&S risk impacts that companies will need to deal with soon.

Essentially these risks come in two forms: physical and transitional risks - Physical risks include: *"the risk that physical effects of climate change - such as hurricanes, floods, droughts, and sea level rises - could seriously damage or disrupt the company's operations and/or supply chain, and therefore reduce its capacity to operate profitably or, in extremis, its ongoing sustainability"*. Whereas transitional risks included: *"the risk that the company fails to anticipate and navigate the regulatory and market transformations brought about by the global transition to a low-carbon, clean energy economy."*¹⁰

⁸ <https://www.asx.com.au/documents/asx-compliance/gia-climate-change-guide.pdf>

⁹ <https://home.kpmg/xx/en/home/insights/2019/03/building-effective-climate-governance.html>

¹⁰ <https://home.kpmg/xx/en/home/insights/2019/03/building-effective-climate-governance.html>

Other risks that are starting to take precedence include the brand and reputational risk associated with climate-damaging activities. These activities become legally indefensible. Climate change and its impacts are considered a risk that boards and all organisations need to take into consideration and be active in reducing those risks that their organisation is vulnerable to.



In Australia, this fiduciary risk responsibility has been highlighted by the Australian Securities and Investments Commission (ASIC) to be all actions that boards and their organisations take to mitigate risks associated with climate change.

ASIC has indicated that its focus is on "ensuring listed companies have appropriate governance structures in place to manage this issue, and providing the market with reliable and useful information on their exposure to material climate-related risks and opportunities" in particular, they have suggested that:

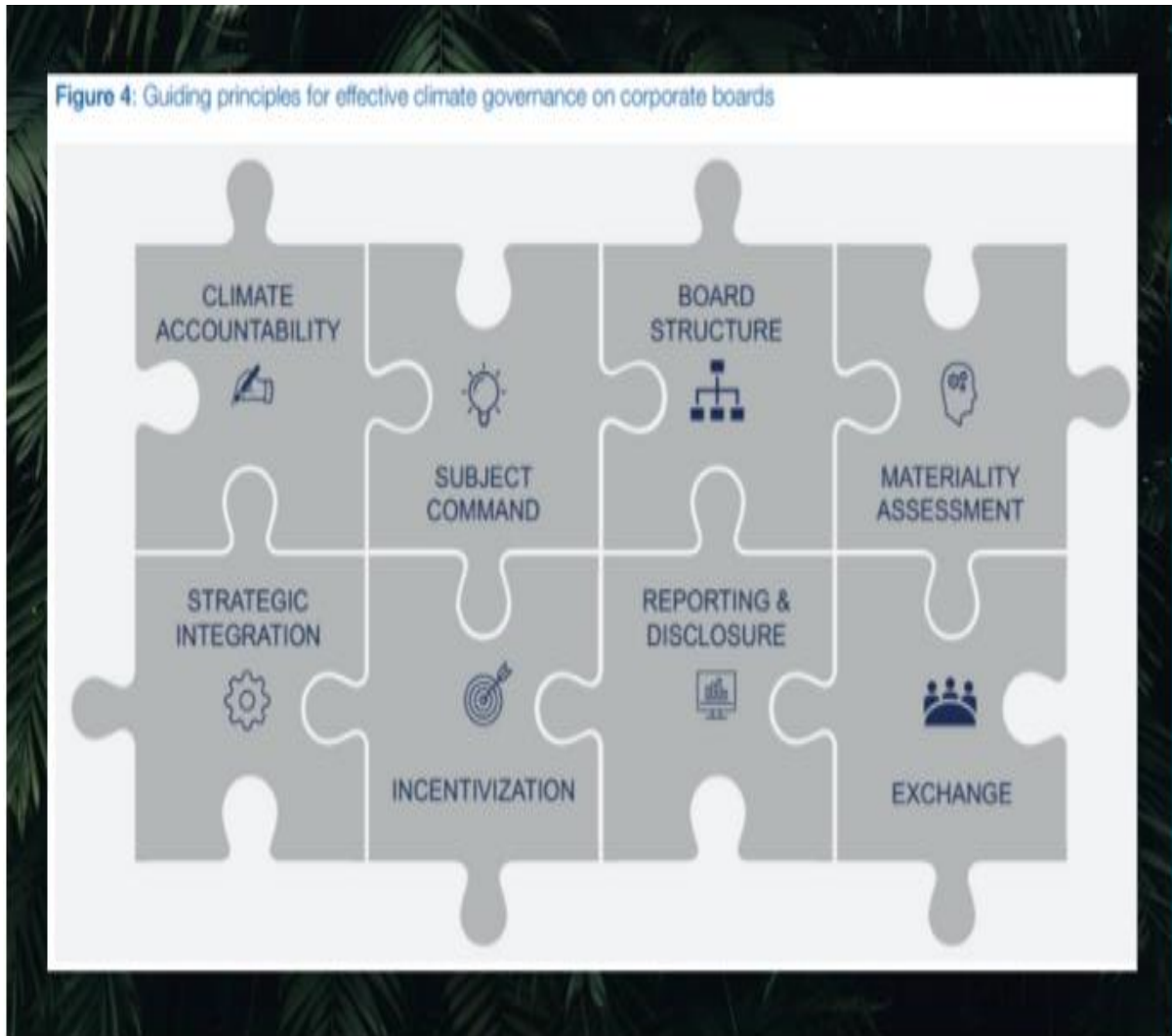
"Board members or their companies may expose themselves to legal action if they fail to identify, respond to or disclose material climate risks. The risk of exposure is particularly high for directors of companies that operate in sectors that are especially vulnerable to climate risks, namely energy; transportation; agriculture, food and forest products; materials and buildings and financial services."¹¹

Even for non-listed organisations, boards that do not show due diligence in managing the risks associated with climate change will be seen not to take the importance of a board member's responsibility to the company seriously. But, more importantly, ASIC has stated explicitly that it: "considers that the law requires an operating and financial review to include a discussion of climate risk when it is a material risk that could affect the company's achievement of its financial performance".

¹¹ <https://asic.gov.au/about-asic/news-centre/articles/managing-climate-risk-for-directors/>

WORLD ECONOMIC FORUM CLIMATE GOVERNANCE

The World Economic Forum (WEF) has published 8 Principles to help Boards everywhere understand the implications of climate change on their directorships. They cover the expectations for boards and match the direction from Australia's ASIC on climate diligence.



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https://www3.weforum.org/docs/WEF_Creating_effective_climate_governance_on_corporate_boards.pdf

Principle	Action
Principle 1:	Climate accountability on boards. The board should take responsibility for ensuring the company's long-term resilience to climate risks.
Principle 2:	Command of the subject. The board should be informed appropriately about climate-related risks and opportunities and make relevant decisions.
Principle 3:	Board structure. The board should implement the right board and committee structures to ensure that climate risks and opportunities are understood, managed, and reported.
Principle 4:	Material risk and opportunity assessment. The board should ensure that management identifies all short, medium, and long-term climate-related risks. Then, to assess their materiality and take appropriate action according to the materiality of the risks.
Principle 5:	Strategic integration. The board should ensure that management factors material climate-related risks and opportunities into the company's strategy, risk management process, and investment decisions.
Principle 6:	Incentivisation. The board should align executives' incentives with the business's long-term success. This may include climate-related targets in executive incentive schemes.
Principle 7:	Reporting and disclosure. The board should ensure that the company discloses its material climate-related risks, opportunities, and strategic decisions to all stakeholders - especially investors and regulators. These disclosures should be included in financial reporting.
Principle 8:	Exchange. The board should stay informed on current best practices in climate governance by maintaining dialogue with peers, policymakers, investors, and others. ¹³

¹³ [How to Set Up Effective Climate Governance on Corporate Boards: Guiding principles and questions \(PDF 3 MB\)](#).

POLICY & LEGAL (CORPORATE)

The risks to businesses aren't just physical and transitional. There are significant costs associated with trading products and services into markets where they have introduced a Carbon Border Adjustment Mechanism (CBAM) to counteract their policy and financial decisions to be carbon-diligent.

We are already counting the costs from climate-driven disasters such as bushfires, droughts, cyclones, and flooding. These worsening climate impacts cause physical damage to organisations and tremendous upheaval to their business economy. As a result, economic activity is disrupted, productivity is lost, and health costs – both physical and mental – rise. All told, these disasters are estimated to have led to global economic losses of A\$272 billion in 2020, in the U.S Hurricane Harvey caused \$125 billion in economic damage in 2017 and 2019–20 Australian bushfires killed more than a billion animals and caused more than \$4.4 billion in damage^{14 15 16}.

Those costs will also include the EU's CBAM that will tax those products and services entering their borders that are not low-carbon in production or makeup. So, we know that *"Australian polluters will end up paying foreign taxpayers just for the privilege of exporting their goods. It's a development that will hurt profits, cost jobs, and hit our export volumes and ultimately the tax take of our government"*¹⁷.



Eventually, the Australian Government will be forced to introduce a carbon tax where polluters pay, rather than the current poorly designed and executed ETS that pays polluters not to pollute! Businesses that are ahead of this development will thrive.

¹⁴ <https://www.abc.net.au/news/2021-07-16/experts-say-eu-carbon-tariffs-spell-trouble-australian-commodity/100298028>

¹⁵ <https://www.abc.net.au/news/2021-07-26/carbon-tax-has-come-back-to-haunt-the-government/100322396>

¹⁶ <https://www.mckinsey.com/industries/financial-services/our-insights/climate-change-and-p-and-c-insurance-the-threat-and-opportunity>

¹⁷ <https://www.abc.net.au/news/2021-07-26/carbon-tax-has-come-back-to-haunt-the-government/100322396>

Ultimately whether Australia introduces a fully functioning carbon tax that limits the increase in carbon emissions from all industries or not, Australian businesses will increasingly be faced with rising costs associated with trading their products and services on an international market taxing carbon-rich action.

Australia has traditionally not been an overly litigious society compared to the U.S. However, this is changing in light of the realities of climate change and successive governments and businesses not taking risks and threats to our livelihoods seriously. This led at least one person to investigate the grounds for litigation on environmental causes in Australia. Justice Preston explored three sources of law for environmental rights, including:



1. The public trust doctrine: where *"the state (as the trustee) is under a duty to maintain and protect common natural resources (trust property organisations manner that is in the interest of the public (beneficiaries))"*.
2. Constitutional rights: *"climate change litigation has also been brought claiming violations of constitutional or statutory rights. Many of these involve a general right to life or a specific right to a clean and healthy environment"*.
3. International human rights: where *"consideration of human rights under domestic and international conventions"* are being transgressed by environmental damage ¹⁸.

More and more individuals and community groups will be bringing cases to Court to test these environmental rights. In Australia, this has recently begun with a class action case being brought on behalf of all Australian children and teenagers against Environment Minister Sussan Ley. But, notably, *"before making those orders, the court found a new duty it never*

¹⁸ <https://www.hunthunt.com.au/services/environment-and-planning/causes-of-environmental-litigation-and-how-it-is-being-pursued-in-the-us-to-mitigate-climate-change/>

has before: the environment minister owes a duty of care to Australia's young people not to cause them physical harm in the form of personal injury from climate change".

This has set a significant new precedent for citizens and groups of people taking action on behalf of the environment, for damage inflicted and action not taken to mitigate the impacts of climate change. This is just the beginning, "a similar duty was found in the Netherlands in 2015, as a global first. In 2019, the Supreme Court upheld that duty – the Dutch Government owed its citizens a duty to reduce emissions to protect human rights". This Court decision didn't just stop with the Government's responsibility, a "court in The Hague ordered Royal Dutch Shell, a global oil and gas company, to reduce its carbon dioxide emissions by 45% by 2030 compared with 2019 levels, via its corporate policy".¹⁹ The Court was signaling to all companies that they need to implement those policies that they have set to reduce their carbon impacts. Otherwise, they will be liable for further litigation.

STRATEGIC RISK

In its recent Global Risks Report 2020 found that the "failure of climate change mitigation and adaptation" was the number one risk of concern for the majority of its stakeholders. Further that the "near-term consequences of climate change add up to a "planetary emergency". Implications are catastrophic, wide-ranging and intersecting. Worse still, the complexity of the climate system means that some impacts are still unknown".²⁰ Worsening natural disasters and unpredictable and catastrophic weather patterns are becoming regular in Australia.



We know that the 2019–20 Australian bushfires alone decimated the natural systems in those areas, killed more than a billion animals, and brought about more than \$4.4 billion in damages to those towns and regions.²¹ To continue financing and insuring projects that do not help curb

¹⁹ <https://theconversation.com/in-a-landmark-judgment-the-federal-court-found-the-environment-minister-has-a-duty-of-care-to-young-people-161650>

²⁰ <https://www.weforum.org/reports/the-global-risks-report-2020>

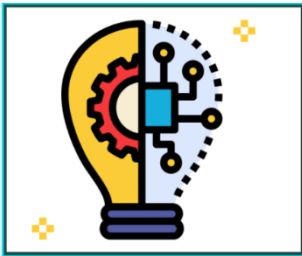
²¹ <https://www.mckinsey.com/industries/financial-services/our-insights/climate-change-and-p-and-c-insurance-the-threat-and-opportunity>

carbon emissions and reduce resource use is risking project failures from poor risk mitigation and stranded assets remaining unsold and devalued.

It is now beholden for businesses to ensure that their operations and activities are aligned with a climate-diligent governance mindset, not just because of the risks to the bottom line but also the potential for reducing the long-term value of the company by not taking the climate risks seriously.

With this in mind, businesses need to focus on several areas to limit their exposure to carbon-intensive operations and lower their carbon footprint. These can include:

TECHNOLOGY



- *Substituting existing products and services with lower emissions options either through the adoption of clean energy technologies, through redesigning the product, or using a low carbon alternative*
- *Utilising up to date, climate diligent investment criteria for new investments, especially for new technology*

MARKET



- *Being aware of the great uncertainty in market signals from a lack of national leadership*
- *The changing climate and increase in natural disasters mean that it is likely to increase the cost of raw materials. Moving to a production process that uses non-raw/virgin materials will reduce this risk significantly*
- *Being mindful of the changes in consumer sentiment towards companies not taking climate change impacts seriously*

REPUTATION



- *There has already been a significant shift in consumer preferences towards those businesses and products that are showing real climate diligence and mitigations actions, and this will begin to widen as climate impacts become more apparent*
- *There is a considerable business risk to the Brand's image and standing in the public sphere by any continued actions that investors/consumers don't see as being climate diligent*
- *Increased stakeholder concern/negative feedback and this is growing among listed and non-listed companies with activist investors building a growing call out for action on climate change by companies*
- *The stigmatisation of sectors such as the coal and gas industry will become more common as consumers and the wider public lose confidence in such sectors*

More than ever, businesses are seeking to establish their sustainability credentials to demonstrate to their stakeholders that they're serious about mitigating climate change as well. As a result, some choose to implement Corporate Social Responsibility (or Sustainability) programs, or what is sometimes referred to as the 'triple bottom line approach that considers the economic, social and environmental aspects of corporate activity. It is one-way companies can demonstrate that they are reciprocating on the social license the community affords them to operate. Various terms are used to describe CSR initiatives, including: 'Corporate Responsibility,' 'Corporate Accountability, 'Corporate Citizenship', Environmental, Social Governance (ESG), or 'Sustainability.'

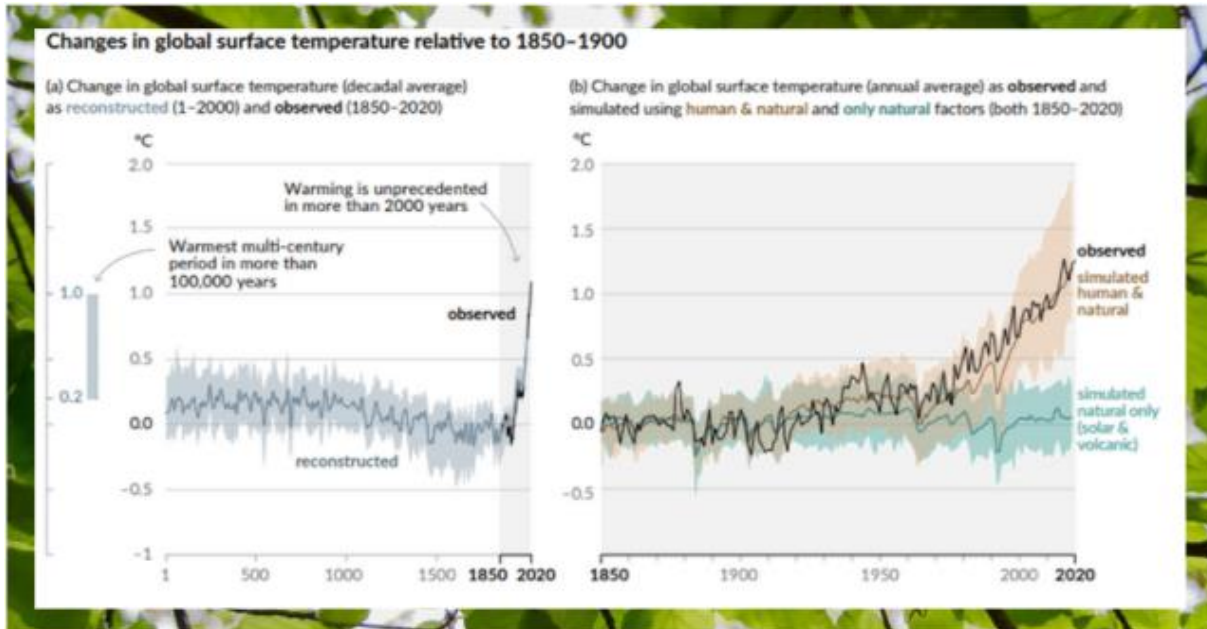
PHYSICAL RISK

Many of us reading this have seen the growing effects of climate change in our local communities while reading of devastating impacts experienced across the globe. We have experienced the acute effects (i.e., extreme weather events and patterns) and observed the chronic changes in weather patterns (rising temperature and sea levels).



Global temperatures have risen 1.1 since early industrialisation 1880s, roughly 140 years. But proportionally, the rate of increase skyrocketed from the 1950s until now, seeing a temperature rise of 0.85 (77% of the overall rise), see figure below from IPCC 6th Assessment Report²². They clearly show the direct impact of population growth coupled with modern commercialism associated with outdated Government and economic thinking systems.

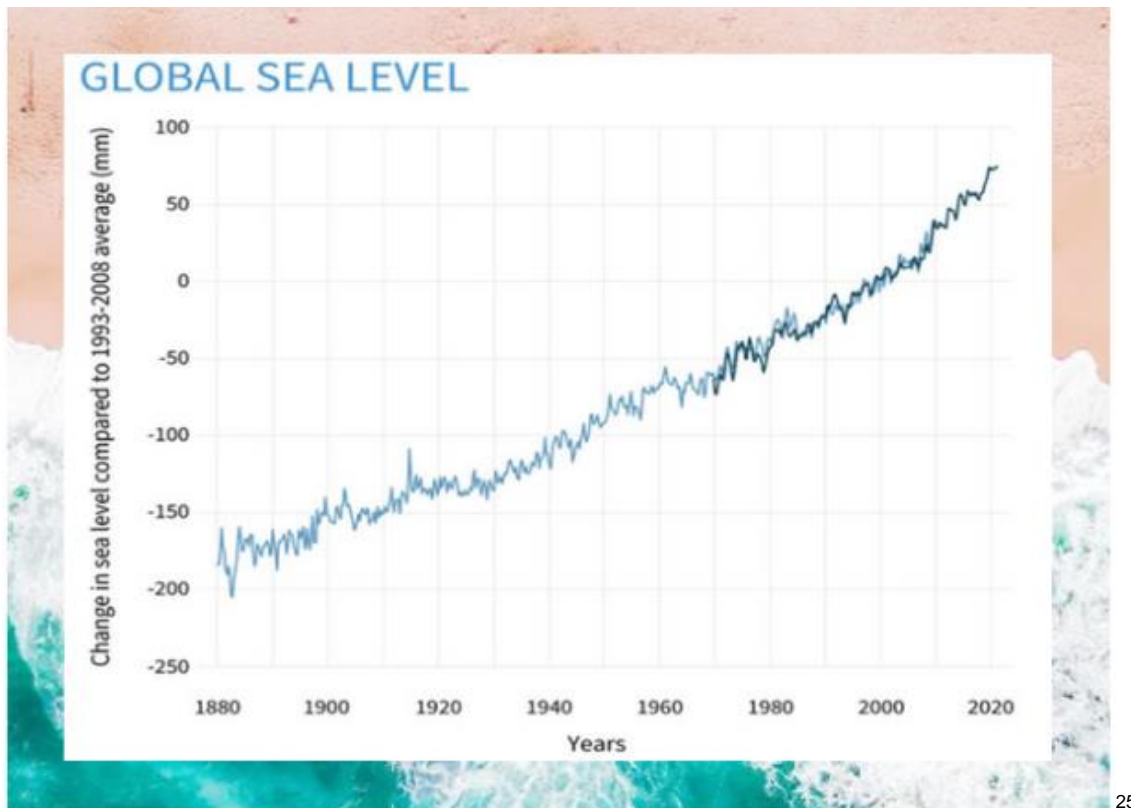
²² [IPCC 6th Assessment Report - Summary for Policymakers](#)



The mean global sea level has been measured rapidly since industrial activity has increased due to an ongoing rise. Since 1900 the international sea level has risen approximately 20cm.²³ The leading cause of this sea-level change is the rising global temperatures that dramatically melt ice structures (i.e., glaciers, sheets) and cause groundwater movement to increase inland water levels.²⁴

²³ [IPCC 6th Assessment Report - Summary for Policymakers](#)

²⁴ <https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level>



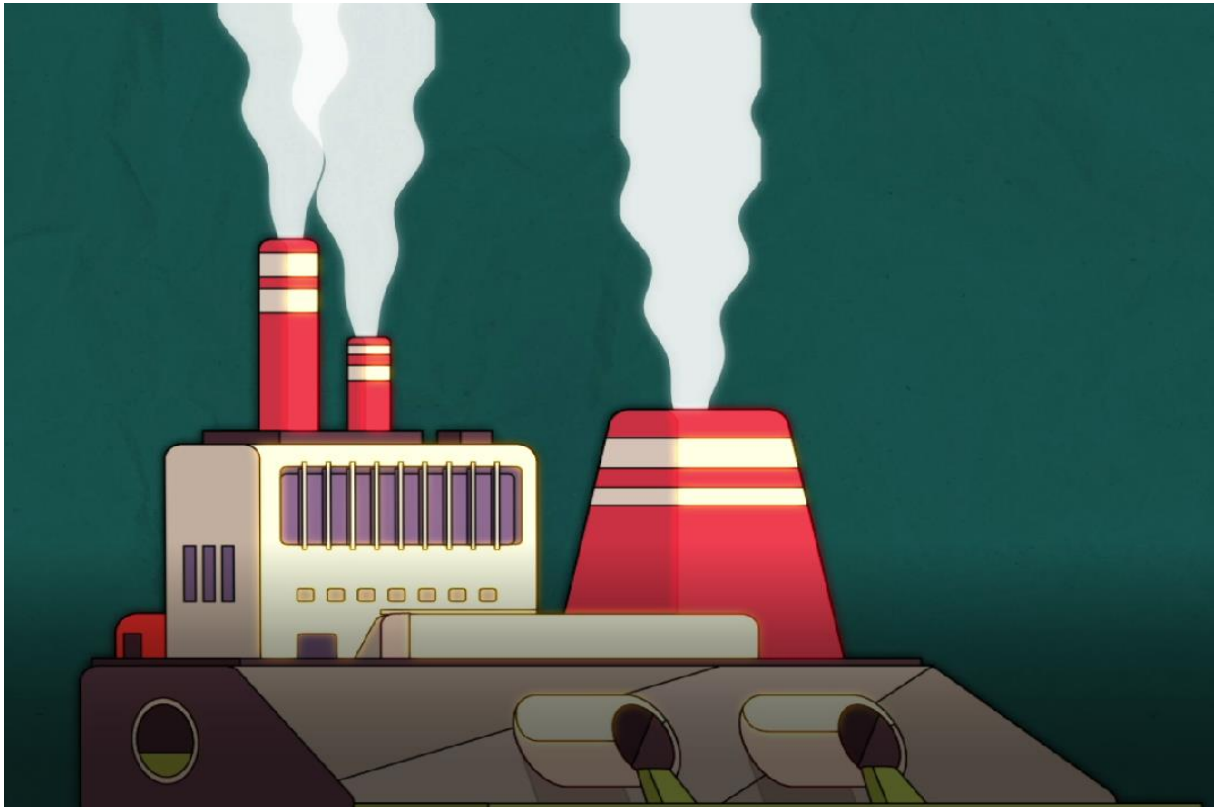
25

The rise in capital growth and expansion of an outdated linear economy that no longer serves us as a planet should be destroyed to make way for new-democratic political and economic systems that support regenerative and distributive ways of living. We now need to shift our way of life to a physical world with aptly clear limits.

Persisting as we have will see the rapid destruction of life systems in an unimaginable – leaving us trying to survive rather than thrive. Whatever service or product your organisation delivers there is a perceptible carbon footprint - through manufacturing, distribution, travel, operations (i.e., office), and event facilitation. Therefore, if you have a carbon footprint, you also impact the environment through increased emissions output and resulting climatic shifts. The direct effects of climate change circle back in causing immediate physical and financial risk to businesses.

²⁵ <https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level>

SO WHAT DOES THIS MEAN FOR BUSINESSES?

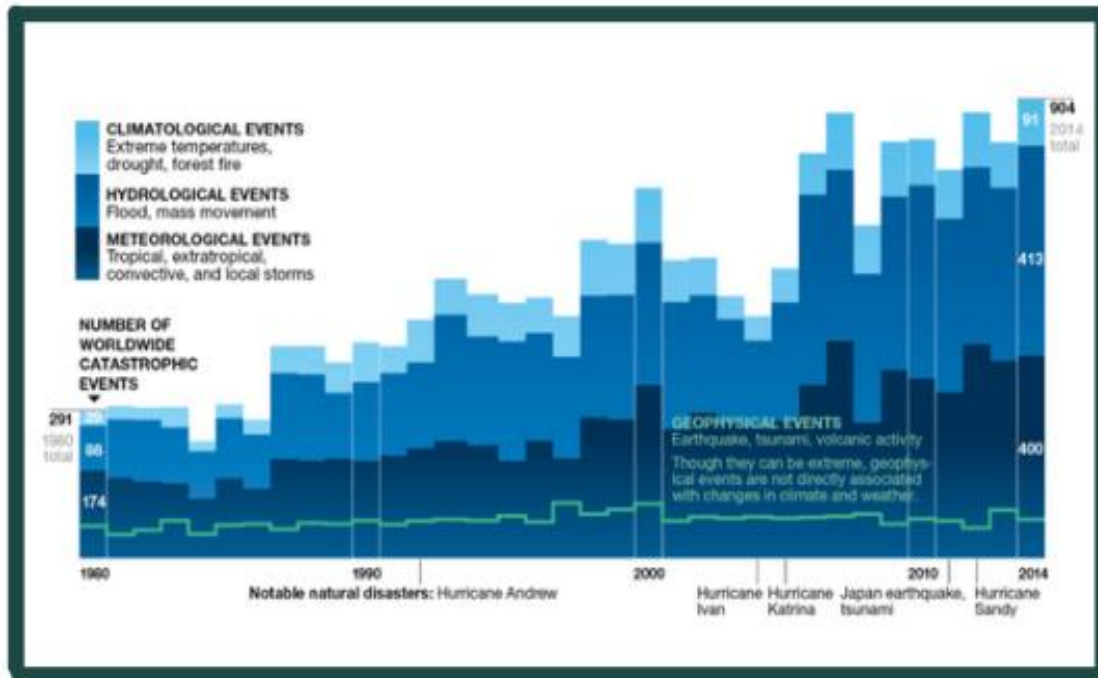


Realising our footprint and impact extends to the fact that we use and rely on various physical systems. These systems draw upon the environment and cannot exist in any form without the availability of the environment's natural resources. Therefore, the impact of climate change via extreme weather conditions, resource availability, and natural disasters will undoubtedly impact the physical systems we have come to rely on. Physical damage will impact your business, a caveat that your organisation depends on the physical system identified. The physical systems exposed to climate effects include physical assets, operational sites (i.e., manufacturing, industrial), travel systems (i.e., airlines), supply chain distribution systems (freight, aeroplanes, etc.)

ASSET DAMAGE

The climate system is being challenged closely by the rising carbon emissions in our atmosphere and impacting various physical conditions. The incidence of extreme weather events is dramatically increasing in frequency and severity. The physical damage is often felt later and is a minor focus of current climate discussions. Still, it is an inevitable outcome, as we have seen already in the aftermath of wildfires, floods, tornadoes, and more.

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As more wildfires, flooding, drought, adverse air systems (i.e., tornados, cyclones), smog occur, the impact on our physical assets is direct and unavoidable. As most businesses own, rent, or borrow physical assets, they would be directly impacted by extreme weather events, including buildings, manufacturing facilities, physical assets, employees, products, and the physical supply chain. Some of the direct outcomes would include:

- Equipment failure and damage
- Production of construction disruptions and failure
- Employee health and absenteeism
- Supply chain asset and infrastructure disruptions and breakdown

²⁶ <https://www.nationalgeographic.com/climate-change/how-to-live-with-it/weather.html>

OPERATIONS DISRUPTIONS/DAMAGE

Business productivity relies directly on the assets which support the broader operations, including the human capital needed to run the systems efficiently. While the climate shifts and we experience improvements, more extreme weather conditions, the frequency of direct and broader business impacts will undoubtedly increase. Thereby reducing production efficiency and capacity, office operations, and the surrounding business partnerships and community/stakeholder capacity.



The ultimate impact of such disturbances in business as usual is that business yield, regardless of your product or service output, is reduced dramatically. Adverse outcomes might include frequent impacts across:

- Limited resource availability
- Decreased production capacity
- Lower product quality
- Project and service delivery interruptions
- Micro and macro business ecosystem collapse

TRAVEL & LOGISTICAL DISTURBANCE

The transport systems which support organisations through work-related travel, logistics, and distribution, the supply chain will have an expansive impact on their capacity to support an organisation. The delays to moving people, products, and services - embeds a new layer of risk to the organisation's ability to deliver a helpful product or service.

The agility and adaptability of an organisation will be tested to the absolute end with the effects and outcomes of adverse climate impacts. They are causing various delays, holds, and losses to businesses and the communities they serve.



COMMUNITY CAPACITY



Climate events and extreme weather impact customers and clients through their ability to earn sufficient income and, therefore, their capacity to buy services and products. Depending on income and financial contingency, the community cannot prioritise consumerism beyond their basic needs (i.e., food, health, shelter, and education). This means demand will diminish with the impacts of climate-adverse events.

➤ Top 3 Financial Impacts

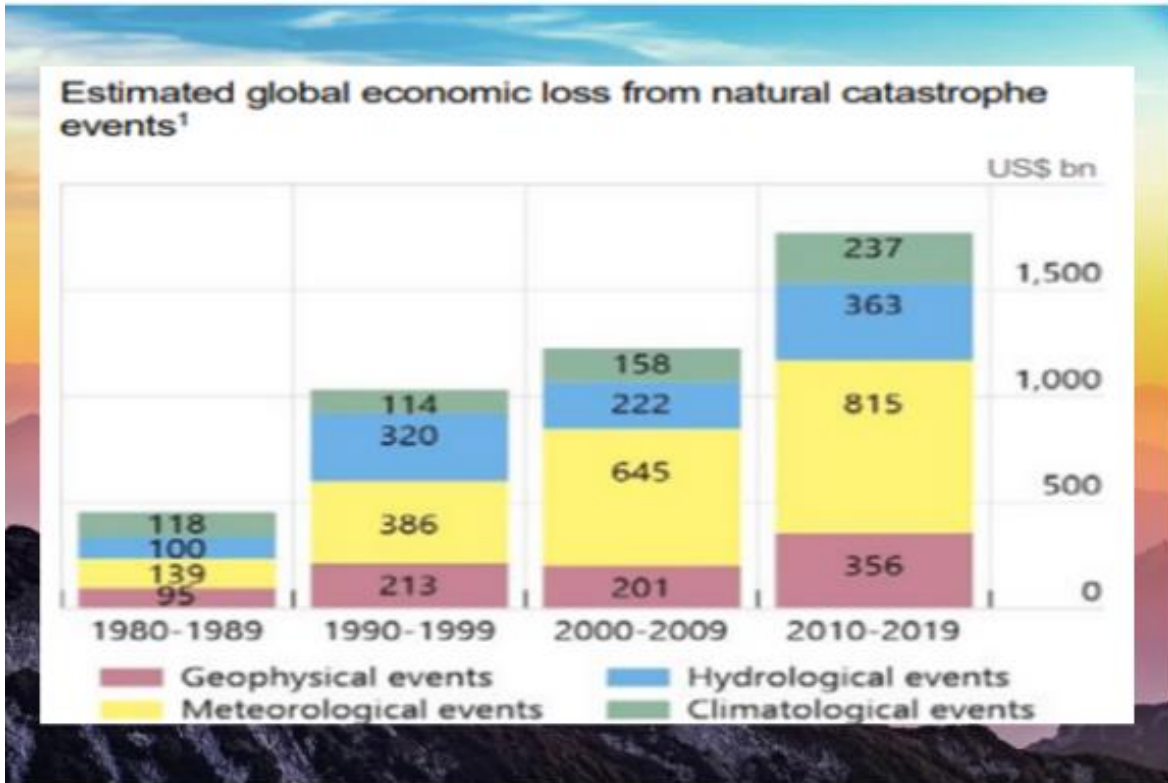


FINANCING

The catastrophic events that have destroyed natural and manufactured infrastructure have already disrupted financial institutions due to the capacity loss of its constituents and the agility in the institution to respond. The financial institutions impacted include any organisation involved in a deposition, loans, investments, and currency exchanges. The intrinsic overlap between currency and climate change is a confronting truth that we faced as a planet during the Global Financial Crisis in 2008 and has only continued to grow, as seen in the following image. Therefore, awareness and agility in moving money and utilising the impacts of climate change intrinsically guide it.

The environment has long been referred to as a natural resource and, more recently, natural capital. The intention in creating an economic term for our natural environment opens up the dialogue in financial discussions on how we quantify the value, loss, and impact of our natural resources. This allows policymakers and economists to develop legislative and commercial practices that consider the environment an inherent part of our economy.

The caveat to this is that using the term 'Natural Capital' needs to only be done as a tool for disrupting the economy towards a better climate and not as an underhanded way of further commoditising our natural resources. Many have a fear of the term driving an agenda of thinking that 'as long as you pay for it, you can use it is deeply destructive.



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THE NATURAL ENVIRONMENT IS INFINITELY VITAL TO OUR MERE EXISTENCE, AND THEREFORE USING IT SHOULD COME WITH THE HIGHEST PRICE AND DEEPEST VALUE.

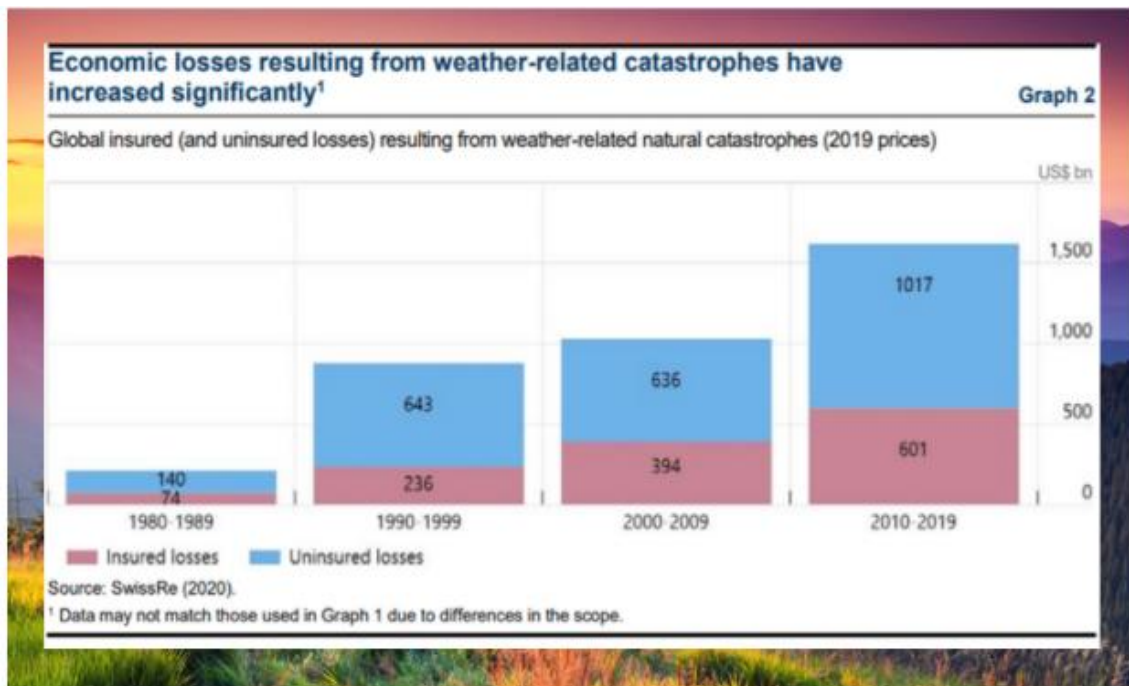
The stability of financial systems based on climate-related effects is difficult to quantify. Still, the TCFD has developed a unified approach that has been guided by top industry experts and government leaders—establishing a comprehensive framework and conduct on financial decision-making processes to improve the system's stability. Especially around two major high-level risk categories, physical and transitional risks, i.e. transitioning towards a low-carbon economy.²⁸ These two risk categories are collaboratively correlated, so a response or lack of one to physical threats might generate higher risk exposure in the transition piece. Therefore, managing the balance between the two risk components is imperative to stabilising our planetary systems and driving economic reformation around a low-carbon economy.

²⁷ <https://www.fsb.org/wp-content/uploads/P231120.pdf>

²⁸ [The Implications of Climate Change for Financial Stability](#)

Financial institutions should be diligently disordering the current system if they want to create a climate-aligned one. The design needs to be adaptable in overcoming the negative impacts of climate events that cause financial loss, which is further exacerbated by a receding credit line. This flow-on effect will stifle investments and positive GDP growth as more and more people are impacted by the financial downturn. This is commonly discussed among prominent economists who see the immediate need to adopt a much more proactive and responsive financial system to respond to economic downturns and generate cohesive growth at the same time.

The more frequent extreme weather events will directly affect the physical infrastructure. But, due to the damage and claims and lending practices, it will also indirectly affect the financial premium. So, we are adding growing pressure to the economy, which is already in effect and only presumed to increase. Especially as we start to transition to a low carbon economy, a vastly demanding task reliant on financial funding to support new technology, R&D, and innovation, developing nations transitional support and contingency support, which thus far is not being taken seriously. This will only take us into a further slump as we see the economic loss from the increased number of catastrophic weather events, as seen in the image below. So overall this low-carbon transition is an expensive piece of the roadmap ahead and can be resolved with long-term regenerative and distributive thinking.



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As the disparity between the developed and developing nations grows and within emerging economies rapidly leaves the majority of humanity behind, we can see an apparent problem with the current economic system. Therefore, taking a manageable approach to reforming the financial stability will make this gigantic feat bearable and possible. Despite all the uncertainties, there is plenty of historical data and new knowledge of climate change, technology, and the economy to change how we do things overall for the betterment of our global community.

²⁹ <https://www.fsb.org/wp-content/uploads/P231120.pdf>

INSURANCE - BUSINESS INSURANCE

The most significant risks for the insurance and financial sector are the number and range of natural disasters and their frequency. However, insurers' concerns are no longer centered around individual catastrophic events. Instead, now their concern lies with the interactions between the global climate and the human systems we all rely on.



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It is now well understood that the *"extreme weather conditions generated by the evolving climate will most often result in events from water-related stresses"*. Water stress will be the most significant climate-related hazard to assets by 2050, especially for the utilities and materials. Corporate infrastructure in Asia, East Asia, the Middle East, and North America is most exposed to severe weather events and other climate change dangers. Moreover, the *"physical assets with fixed locations owned by companies in the utilities, materials, energy and consumer staples sectors will face the greatest climate-related risk 30 years from now"*.³¹

It is becoming more common and frequent for climate-linked issues, such as extreme heat, natural disasters, and biodiversity loss—and the failure to respond to these challenges in time -- to be at the heart of reports coming out of major international agencies and think tanks.³²

³⁰ <https://www.mckinsey.com/industries/financial-services/our-insights/climate-change-and-p-and-c-insurance-the-threat-and-opportunity>

³¹ <https://www.spglobal.com/esg/insights/corporate-physical-assets-increasingly-in-harm-s-way-as-climate-change-intensifies>

³² <https://www.mckinsey.com/industries/financial-services/our-insights/climate-change-and-p-and-c-insurance-the-threat-and-opportunity>

For example, economic stress and damage from natural disasters worldwide in 2018 were US\$165 billion, and more worrying is that 50% of that total was uninsured.³³ We know that these statistics are similar in Australia. Francesco Lamperti, Valentina Bosetti, Andrea Roventini & Massimo Tavoni, in their 2019 publication "*The public costs of climate-induced financial instability*" in Nature Climate Change, suggested that there is no evidence climate change will significantly affect economic growth and several productive elements of modern economies, such as workers and land.³⁴

What of the cost of ignoring the science or the messages from investors and consumers? Over 200 of the world's largest firms estimated that climate change would cost them a

The combined total of nearly US\$1 trillion in the case of nonaction.³⁵ So, the discussion rightfully needs to move to one where the total cost of inaction is gauged against the full cost of action and judged accordingly.

CORPORATE EXPOSURE

Company directors of the board have a fiduciary duty to take on personal responsibility to the companies' shareholders and stakeholders. As such impartial decision-making that isn't driven by a personal agenda and supports the



organisation's policies and long-term goals is a crucial part of the role. As this role transitions precariously into a carbon economy, the expectation and pressure from global discussions increase many directors' risk and exposure. Especially if they aren't supporting considerate climate action, the pressure is beyond subjective opinions and is closely related to business resilience, higher risk profiles, and failed market validation.

³³ [Green, M. 2019. "World's Biggest Firms Foresee \\$1 Trillion Climate Cost Hit". Reuters. 04 June 2019.](#)

³⁴ <https://www.nature.com/articles/s41558-019-0607-5#auth-Francesco-Lamperti>

³⁵ https://www3.weforum.org/docs/WEF_Global_Risk_Report_2020.pdf

POLICY VS ACTION DISSONANCE

The Corporations Act³⁶ poses a legal expectation under section 295 that organisational directors are obliged to disclose any financial risk to their business which by extension is related to climate-related risk. In addition, by signing a legal declaration, they are bound to inform the public of their business action towards aligned sustainable action that reduces financial risk implications on the operations.

These legal obligations and the growing public interest in corporate action mean that this stakeholder (not investor) led economy directly influences organisations. So, therefore, a lack of activity can negatively impact reputation amongst the community, clients/customers, investors, and industry/market leaders.



As the attention on corporations is exemplified, the directors and corporate suite within the organisation are coming under close attack from not taking aligned diligent climate action. This is a personal obligation of the leaders and decision-makers to consider the material risk to the organisation under current operations and future climate scenarios. Without this thorough due diligence, the underlying intention for any decision becomes questionable at best. This is a considerable risk to organisations as more claims are raised on the board directors for not exacting their fiduciary duty and only considering immediate or personal agendas.

This leads to financial threats to an organisation culminating in their corporate board being exposed to climate litigation, which can lead to a rapid collapse in the physical and reputational infrastructure which has been carefully built.

³⁶ <https://www.legislation.gov.au/Details/C2017C00328>

DEREGULATION ASX 100;

The Australian Stock Exchange has been working closely with the Governance Institute of Australia and the Australasian Centre for Corporate Responsibility (ACCR) to ensure adequate reporting on climate change by the top 100 ASX listed companies³⁷ Relying closely on the national and international climate change science and reports from CSIRO, BOM, NASA, and IPCC all carbon reporting is expected in alignment to the derived science-based targets. This maintains an unbiased reporting structure under recommendation 7.4²⁶ to encourage these corporations to specifically report all climate change-related material risks and a plan of mitigation.

For integral reporting of all material risks, many corporations rely on global climate disclosure frameworks to consider as many risks as possible. Some of the international standards which are the most popular by choice and functionality would include the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), and the Climate Disclosure Standards Board (CDSB). These reporting frameworks quantify the environmental and natural capital exposure, risks, and basis for climate action. In addition, the ASX100 requires an integrated approach to exposing all material physical, transitional and financial risks which are directly related to environmental and social.

CLIMATE LITIGATION

With the increasing number of cases around climate change litigation on directors and leaders and the threat of deregulation from corporate listings such as the ASX, there is a new wave of financial risk from the corporate exposure around climate change and inaction.



There has been a surge in climate change litigation cases, with various financial implications from the legal costs. The financial exposure extends beyond the litigation costs, including damages claims, reputational defence costs, operational disruptions, and enforcing new mandated disclosure-related changes and collectively increasing the level of risk and exposure to the organisation while adding substantial financial costs for the business.

³⁷ <https://www.asx.com.au/documents/asx-compliance/gia-climate-change-guide.pdf>

➤ Top 3 Opportunities

As momentum builds around climate change and sustainability, many businesses plan and take steps towards these big goals to reduce their impact on natural and social systems. The difficulty lies in determining the most effective next step and how best to move towards those more expansive goals. So before diving into the opportunities, let's take a quick moment to consider some common mistakes organisations make along the way.

1. They set goals without understanding their current baseline impact. Without assessing the materiality of operations and effects, the organisation cannot effectively determine the best focus for its targets and goals.
2. They don't involve the proper stakeholder engagement, including understanding who will make critical decisions (and sign-off) and who will do the work.
3. They set goals without ambition and a proper measurement and verification process. Goals need to drive innovation and be guided by objective reality to align to the core business in a measurable and accountable way.
4. Marketing (& PR) and engagement that conveys the goals, progress, and learnings to build the organisation's Brand around sustainability.
5. Market validation and design testing of the idea or plan ensure that the market wants, needs, and supports.
6. Forgetting to ask for help might mean seeking answers outside the organisation and beyond a comfort zone. But this is extremely important in broadening our perspective and collaborating to solve the problems in our dynamic society.

RESOURCE & ENERGY EFFICIENCY



The world is built on natural resources and energy, and every system around us would disassemble as soon as we lose access to these two essential means. Therefore, consciously using and preserving resources and energy is imperative in a global shift towards a more sustainable and diligent climate. The basis of this improved thinking is by following a hierarchical approach which improves decision making and the action plan in shifting towards a circular and low-carbon operation.

THE HIERARCHY

Hierarchical thinking takes complex problems and breaks them down into manageable steps that can be implemented more efficiently and leverage action on the proceeding step. A resource and energy hierarchy creates a sensible structure towards the most sustainable energy and resource consumption profile possible for the organisation. The logical steps to take from conventional energy and resource technology and systems are:

1. Prevention Or Avoidance
2. Minimisation or Efficiency Improvements
3. Reuse, Recycle, Renewable
4. Energy Recovery Or Low-Emission Alternatives
5. Conventional Resources & Disposal (What we currently do)

These steps apply across energy or resource consumption within the system or process considered under the hierarchy. When an organisation adopts a solution that bypasses the hierarchy, a considerable amount of intrinsic sustainability is lost, such as if a biscuit manufacturer installs 120kW of solar panels but only needs 100 kW after taking proper avoidance and efficiency steps. Or if the same manufacturer designs a compostable packaging for the biscuit packet before exploring a pre-step in reducing the existing packaging that uses multiple layers. These are simple examples of what can turn into quite a costly time and effort-based loss to the business if not done correctly.

ENERGY EFFICIENCY

Every single business consumes energy, and it is one of the most significant impacts a company might have on the environment. Given the dynamic transition of most nations towards a renewable state of supply, most energy still draws upon non-renewable and environmentally disruptive fossil fuels. This leads to the need for every business to bring external (non-bias) expertise in developing a precise analysis of the energy consumption baseline. Mapping out the scope of energy and resulting emissions can improve the business focus onto the best areas for efficiency improvements

As we have built our organisations around highly embedded energetic systems, we sometimes forget energy is a part of almost every decision we make. This starts with extracting resources from the earth, processing them into a product, transporting and distributing the product or



service. In addition, so many other operational needs, i.e., travel, offices, factories, delivery, etc. Becoming more energy-efficient starts with considering the source of energy (green contracts), then taking steps to reduce usage, improve efficiency, integrate better systems, and substitute energy supply.

RESOURCE EFFICIENCY

Our natural resources are seamlessly becoming a part of the adapting economic discussion, informing the way we consider it within a commercial context. As the term Natural Capital gains momentum, it changes how resources are extracted and used. There is an evolving financial system supporting more conscious resource consumption to reduce the impact on the environment. There are obligatory drivers to minimise resource consumption and economic benefits in taking such action.



For starters, an organisation that improves resource efficiency is also positioned to meet policy and legislative requirements in the long term. Additionally, as with energy efficiency, the hierarchical approach to resource efficiency builds resilience and reduces risk and exposure as resource availability becomes a persistent problem. Therefore, the drive to consider resource draw on the environment reduces environmental impact while providing stability and economic benefits to the organisation.

Improving the inherent resource efficiency of the processes within an organisation will improve the financial economy of standard operations. However, while innovating new ways to operate the business, it becomes more frequently exposed to adverse climate events or resource scarcity.

PRODUCTS & SERVICES

The TCFD has provided a raft of ideas to do things differently in businesses (see Figure xx). It is now incumbent on companies of all sizes to understand and acknowledge their climate risks, take stock of the impacts and then manage them. Actions to assist businesses might include working on the potential financial implications to help investors and companies consider longer-term strategies and the most efficient allocation of capital in light of the potential economic impacts of climate change. In particular, businesses should be looking to transition their value chains towards products and services that are low carbon and low emissions to be more climate-resilient.



TCFD RECOMMENDED DISCLOSURES

<p>Governance</p> <p>Disclose the organization's governance around climate-related risks and opportunities.</p>	<p>Strategy</p> <p>Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning where such information is material.</p>
<p>Recommended Disclosures</p> <ul style="list-style-type: none"> a) Describe the board's oversight of climate-related risks and opportunities. b) Describe management's role in assessing and managing climate-related risks and opportunities. 	<p>Recommended Disclosures</p> <ul style="list-style-type: none"> a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term. b) Describe the impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning. c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.
<p>Risk Management</p> <p>Disclose how the organization identifies, assesses, and manages climate-related risks.</p>	<p>Metrics and Targets</p> <p>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</p>
<p>Recommended Disclosures</p> <ul style="list-style-type: none"> a) Describe the organization's processes for identifying and assessing climate-related risks. b) Describe the organization's processes for managing climate-related risks. c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management. 	<p>Recommended Disclosures</p> <ul style="list-style-type: none"> a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process. b) Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

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"Climate change presents global markets with risks and opportunities that cannot be ignored, which is why a framework around climate-related disclosures is so important. The Task Force brings that framework to the table, helping investors evaluate the potential risks and rewards of a transition to a lower-carbon economy ³⁹."

Some opportunities to consider:

- Use of more efficient (low emissions) modes of transport and production and distribution processes
- Use of recycling and aiming to transition to zero waste
- Move to more energy and water-efficient buildings
- Reduce water usage and consumption
- Use of lower-emission sources of energy
- Use of supportive policy incentives
- Use of new technologies
- Participation in the carbon market
- Development and/or expansion of low emission goods and services
- Development of climate adaption and insurance risk solutions
- Development of new products or services through R&D and innovation
- Access to new markets
- Use of public-sector incentives
- Access to new assets and locations needing insurance coverage
- Participation in renewable energy programs and adoption of energy-efficiency measures
- Resource substitutes/diversification

Of course, such actions require a committed and supportive government at all levels. In Australia, most State Governments are rising to the challenge of climate change and providing leadership where it is currently lacking at the Federal level.

³⁹ https://assets.bbhub.io/company/sites/60/2020/10/TCFD_Booklet_FNL_Digital_March-2020.pdf; TCFD Chair, Michael R. Bloomberg, June 2017.

RESILIENCE (MARKET & ASSETS)

Given the uncertainty of the future and climate change, which will only further impact people and organisations, building more robust and resilient businesses is essential to their survival. This organisational resilience is integrated through market and asset protection and contingency planning to reduce the likelihood of failure and increase foresight with future scenario planning. Building more resilient portfolios requires a holistic risk-based approach that reduces losses while also increasing the opportunities to support the transition to a low-carbon economy.

Considering the market needs while being aware of sector-specific requirements will help develop a plan to host an adaptable business environment. Being ready to pivot and shift the approach to the market is imperative if a business wants to survive and thrive in the changing economy. As the Pandemic has proven, the company might fail, but you don't need to if you are prepared and ready to transition through the impacts with a better-aligned idea or opportunity.



Considering the concerns around physical and transitional risks, a thorough resilience plan will have specific scenario planning and opportunity assessments to improve their response. In addition, improving energy and resource efficiency and product design will enhance business resilience in a big way. Stability in operations becomes especially useful for organisations with long design-life assets or large-scale infrastructure networks such as water or electricity distribution systems.⁴⁰

The idea behind resiliency planning has been growing in popularity as it subtly introduced its underlying principles incorporate frameworks that encourage collaboration and community engagement. As that is a crucial building block of an excellent resiliency plan, it needs to grow across boundaries and involve competitors, communities, governments, and external experts. This approach entails a highly dynamic group of stakeholders who can contribute personalised and experience-based thinking to improve the plan to respond most effectively to climate change.

As our knowledge and awareness of climate change grows and expands, we are forced to reconcile with new and disruptive information which encourages innovative problem-solving. By extension, the strategies and plans we develop need to be regularly revisited and improved into the next iteration of what is most relevant to the organisation. This demands a highly agile organisational culture that supports educated and qualified ideas and innovations to stay relevant, dynamic, and resilient in the market.



⁴⁰ <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf>

➤ Bonus Content

TOP 3 MISCONCEPTIONS

LIST OF RISKS = MANAGEMENT

41

Risks	
 Transition	Policy and Legal <ul style="list-style-type: none"> Carbon pricing and reporting obligations Mandates on and regulation of existing products and services Exposure to litigation Technology <ul style="list-style-type: none"> Substitution of existing products and services with lower emissions options Unsuccessful investment in new technologies Market <ul style="list-style-type: none"> Changing customer behavior Uncertainty in market signals Increase cost of raw materials Reputation <ul style="list-style-type: none"> Shift in consumer preferences Increased stakeholder concern/negative feedback Stigmatization of sector
 Physical	<ul style="list-style-type: none"> Acute: Extreme weather events Chronic: Changing weather patterns and rising mean temperature and sea levels

The demand for transparency and accountability requires that businesses embed these principles into frameworks and practices with rigour and robustness. The eyes of the world are on business. The community wants to see a clear line of action that keeps the leaders answerable to their commitments. The problem arises when the organisations take a vague approach to risk identification. Instead of following a holistic process to identify, correlate, assess and refine the climate risks and opportunities. This is often seen with the submissions to the TCFD disclosures, where a list of generic climate risks is assumed to be a proper climate-risk management action.

The TCFD has developed a systematic risk and opportunity identification structure that should heavily guide the internal process of creating a climate risk plan. They have identified key risk categories (Transitional & Physical) and core opportunity categories (Resource Efficiency, Energy Source, Product & Services, Markets, and Resilience). Refer to this approach to progressively take the most appropriate steps in developing an interconnected list of risks and opportunities and thereby a plan of mitigation and adaptation in response to the risks. It may not be relevant that all identified options should be included in the response plan. Still, secondary or tertiary considerations are based on internal and external limitations on the organisation or market.

A proper risk-management process draws upon expert input on typical risk exposure and potential issues relevant to the industry or process being assessed. So, involving the right people in the discussion is imperative to introduce expert knowledge and appropriate experience to the debate. Rather than allowing for assumptions or guesswork that might compromise the framework's quality, it is crucial to rely on the field experts with exposure to the on-ground experience.

Following the TCFD guidelines to identify the risk and opportunity for your organisation will effectively lead to a management strategy that can clarify what the financial impacts will be on your business operations—ultimately trickling down into economic risk reduction across revenue, expenditures, assets, liabilities, and capital financing. This is a systematic approach in deriving the risk versus opportunity balance to reduce the impact on your organisation.

⁴¹ <https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf>

GHG MITIGATION = STRATEGY

The shift towards a low-carbon economy is a highly intricate and complex process, and part of that is helping organisations understand the depth of their climate resilience strategies. Unfortunately, many companies seem to focus on carbon mitigation as a sufficient resilience strategy in itself, without delving deeper into the risks and opportunities of this mitigation approach on business operations. This means reducing carbon is favoured regardless of the direct, indirect, and transitional impacts on the business operations.



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The overriding issue with this approach is that the organisation is focused on carbon in general regardless of the specific problems climate-related around a system or process. Companies need to have detailed discussions around specific climate-related issues directly impacting or feel indirectly responsible for or sincerely connect with on a values-based level. These detailed explorations will guide the strategic framework on the critical priorities of focus, leading to aligned decision making and, therefore, mitigative and adaptive action that further drives this climate-issue-related vision. The result will often be a lowered impact on the natural environment (i.e. carbon reduction) and an improvement on social and human capital.

The TCFD recommends a top-heavy focus on climate-related disclosures from the organisation's senior management and board of directors. This is because leaders and decision-makers often have profound (intrinsic) responsibility to the business, thereby being the direct contingent to driving accountable action on climate change within an organisation. The diagram below shows the disclosure approach format starting with Governance as it overarches the business around strategy, risk management, and finally, metrics and targets.

⁴² <https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf>

To avoid failing the disclosure process of the TCFD, ensure that your organisation's carbon profile is not the core focus of projected scenario-based implications but instead a sub-part of the detailed strategic approach. Avoiding this pitfall can prevent issues in the medium to long-term roadmap around the underlying carbon reduction strategy. In addition, developing a framework that considers the risks of ineffective methods around the capture, offsetting, and efficiency measures will provide improved mitigation and resiliency planning in the organisation.

BOARD GOVERNANCE = OVER COMPLEX

Previously ASIC has advised businesses climate-related risk is a systemic risk in our market that can significantly impact companies, investors, and consumers. ASIC have shared their guidance for board member



Climate change risk guidance for directors

1. Consider climate risk

Directors and officers of listed companies need to understand and continually reassess existing and emerging risks that may apply to the company's business, including climate risk. This should extend to both short- and long-term risks. Boards should ask if they have considered climate risk in their decision-making process.

2. Develop and maintain strong and effective corporate Governance

Strong Governance facilitates better information flows within a company and enables the board's active and informed engagement and oversight in identifying and

managing risk. Boards should consider if they are comfortable with the level of oversight, they maintain over climate risks and opportunities and the governance structures to assess, manage and disclose these risks and opportunities

3. **Comply with the law**

Directors of listed companies should carefully consider the requirements relating to operating and financial review (OFR) disclosures in annual reports under s299(1)(a)(c) of the Corporations Act 2001. ASIC considers that the law requires an OFR to include a discussion of climate risk when it is a material risk that could affect the company's achievement of its financial performance. Depending on the circumstances, disclosure of climate risk may also be required by the law in other contexts, such as a prospectus or continuous disclosure announcement. Boards should ask if material climate-related disclosures have been made and updated where necessary and appropriate.

4. **Disclose useful information to investors**

The voluntary disclosure recommendations issued by the TCFD are specifically designed to help companies produce information useful for investors. ASIC recommends listed companies with material exposure to climate risk consider reporting under the TCFD framework⁴³.

50 OPPORTUNITIES CHECKLIST

Checklist with 50+ Opportunities to Overcome Climate Risks

Find out the action's companies can take to protect their business against climate change and leverage them for your own business' long-term success.

Refine the strategic framework of the business. Improve the operational and managerial approach. Keeping into consideration people, planet and profits for complete success.

QUANTIFY ENERGY AND RESOURCE SAVINGS

Measurement and Verification (M&V) Tool - Quantify Energy and Resource Savings

Know how to measure and verify energy and resource savings from the efficiency steps you plan to take and save your organisation from expensive, destructive, and ineffective actions.

This tool is designed to calculate the energy savings from the project regardless of the service or product, all businesses quantify resource-based projects. The model is based on either an isolated or whole-site approach. In addition, an M&V method can be used to measure other metric changes, i.e., water, waste, GHG emissions etc.

⁴³ <https://asic.gov.au/about-asic/news-centre/articles/managing-climate-risk-for-directors/>

➤ Next Steps!

STEP 1 - REVIEW CHECKLIST

Once you have READ the EBook get onto bonus 2 - Checklist.

I don't want this e-book to be one of those you download because it's free and for reading when you have "free time." We all know how that story ends.

I know this topic is important to you. So, grab your calendar and schedule the time for reviewing and completing the checklist (Bonus 2).

It is a very simple-to-use checklist where you select Yes(Y) or No(N) on a list of items which your organisation should/is considering on taking action towards.

STEP 2 - BOOK CALL

Reach out to me for any questions about the e-book and the bonuses. I'd love to help.

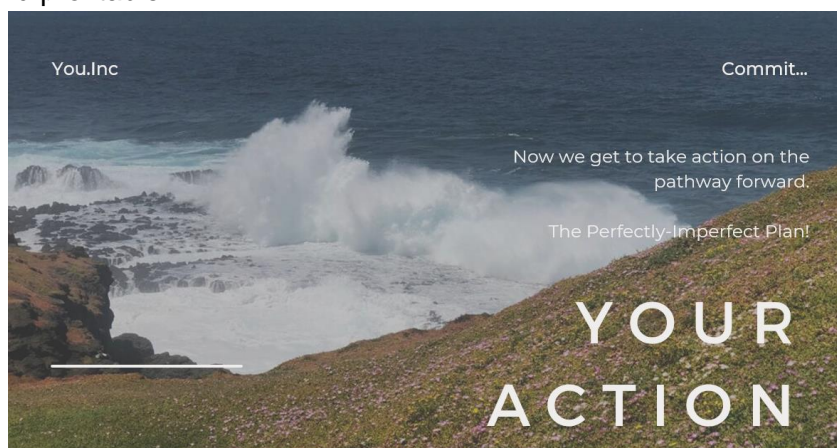
As part of this E-book Launch (until 31st January 2022), I'm offering you a special discount on all my programs. Get in touch to learn more.

If you get your hands on this EBook post the Launch period but would be interested in any of the programs or working together then please get in touch. Who knows what might be on offer, and as they say ***You never know until you try*** ...asking that is 😊

STEP 3 - LEVEL UP

Commit to your next steps and the one after that – Let's take you and your operations to a whole new level.

Build resilience and protect your organization from climate-related risks. Make it more sustainable and profitable.



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