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The case for private sector leadership in the Asia Pacific

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Why climate risk management matters for businesses

Climate change adaptation is often described as a local issue and therefore the responsibility of local governments and communities. But the private sector has an increasingly important role in delivering effective and robust climate adaptation strategies and policies.[1] Changing climatic conditions disrupt supply chains, but also provide space for new thinking and innovation in product development, delivery and the range of services people need. Thinking ahead in this space provides new opportunities for many businesses that can work jointly with governments and communities to develop stronger more resilient and equitable communities and economies. Australian businesses can show clear leadership in this space by demonstrating how their actions can deliver social and environmental benefits to communities while also ensuring business profitability in a changing climate.

Risk management is one of the core issues for any business. Today businesses have to understand and cope with a range of issues. For example, issues around technological disruption, such as how artificial intelligence is changing the way customers can engage with particular services, which new competitors and brands are entering the market, what kind of big data is available to analyse changing consumer behaviour that can be used to drive growth, and what emerging risks are likely to impact company's services and product markets. While all of these areas are important to consider, increasingly there are also risks related to climate change, which can negatively impact key business operations across a range of sectors and markets.


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For example, the *2018 World Risk Report* identifies extreme weather events, natural disasters, and failure of climate-change mitigation and adaptation as the three top key risks with the most likely impact on the business community.[2] While we have mastered our understanding around singular risks and effectively developed strategies to deal with these, the world we are moving towards is better described as a set of systemic risks, which are complex and increasingly interconnected.[3]

These concerns and issues are not unfamiliar to those companies already working and investing in both Queensland and the broader Asia-Pacific region. In fact, one could argue that climate change often just raises the stakes and magnifies many of the existing challenges that relate to transregional trade and investments. Thinking in this way, many companies have already significant expertise and experience in how to invest and operate in a vast region that is full of diverse challenges and opportunities. So, the questions for Australian businesses operating in the region are what to do with the information and how to move forward in a changing climate.

From climate mitigation to adaptation

The concepts of mitigation and adaptation can seem confusing as these are often badged together to explain how we can respond to climate change. Mitigation was a core focus of the United Nations Framework Convention on Climate Change from the early 1990s when the early scientific evidence showed that the world's climate had been warming. Adaptation was not talked about as there was a strong belief that greenhouse gases could be controlled effectively and adaptation would not be necessary. It has only been a rather recent shift that adaptation has been understood as something that we have to do, and will continue to do even more, now and in the future given the drastic changes in the climate system as we have not been able to reduce emissions.

This means for example that bushfires in Australia are getting more dangerous given changes in the Australian climate, and extreme weather events such as floods are occurring more frequently and on a larger scale. Emergency management professionals are already seeing clear changes in the conditions that they have to operate under.[4] Adaptation to climate change therefore needs to be at the core of business thinking now. Businesses need to pay specific attention to how particular trends are changing, how these are impacting the company, its services and operations, and how the business needs to change so that it stays competitive in a new operational environment in the Asia Pacific.

QFES Media 1 PR Handout Image

How climate change became an issue for financial disclosure

Globally, climate change risk disclosures have been a growing trend as our understanding of these risks has increased and how these might impact on core businesses. Climate risks can be divided into two distinct categories: i) transition risks, which are factors impacting company performance in transitioning towards low carbon economy; and ii) physical risks, which are direct risks stemming from climate change impacts.

The global movement and dialogue facilitated by the Task Force on Climate-Related Financial Disclosures (TCFD) focuses on encouraging companies to disclose their climate related risks so that these can inform company policy but also help investors, insurers, lenders and other stakeholders to understand the extent of these risks and risk management strategies in place.[5] This has also prompted the Australian Securities and Investments Commission to examine more closely how Australian companies are disclosing the risks to their operations stemming from climate change.[6] For example, 48% of Australian CEOs do consider climate change and environmental risks as one of the top 3 key risks for company growth.[7] This signals a significant change in the business community and also the growing awareness that we need to re-evaluate the risk landscapes that we operate in.

Globally, investors are showing interest in understanding these risks better in the business environment. The Moody's Corporation for example bought a significant part of a company that measures and models physical risks emerging from climate change.[8] This step is significant for a number of reasons. Given that Moody provides credit ratings to governments, this purchase in particular signals how seriously they are taking emerging climate risks. For example, climate change impacts such as the increase in extreme events (flooding, heatwaves, hail) can reduce the tax revenue for particular areas if outmigration occurs due to increasingly unfavourable living conditions. This naturally also has consequences to the private sector for product demand and also the extent that they can deliver services in particular places and sectors.

For businesses this means that they need to monitor the changing conditions but also the changing demands on their products and services. For example, in the Pacific islands, there are increasing efforts to provide more availability of insurance products for governments, households and private sector companies operating in these countries given extreme events such as Tropical Cyclone Pam in 2015 (Vanuatu) and Cyclone Winston in 2016 (Fiji). These cause significant damages nationally and impacted in particular tourism related services and products.

Understanding particular risks to supply chains and also core business products will be increasingly important in particular in regions like the Asia Pacific where large-scale changes in the operational environment are likely to stem from climate change. These changes are also likely to increase potential security risks in the region, if for example, some coastal locations become uninhabitable and communities are forced to relocate. Such a situation can bring with it complex issues concerning sovereignty, state boundaries, citizenship and changing rights to exclusive economic zones.

Practical examples of understanding climate risks and adaptation

Despite these overwhelmingly negative projections, there are ways that businesses can take leadership in the climate change space. They can firstly understand risks, what to look for, and then determine and develop strategies to deal with and manage these. Better risk management can result in stronger capacity to foresee negative trends and shield business operations from harm, while also ensuring that the products and services provided to the community continue to be available.

A recent project funded by the US State Department for example looks at climate resilience in the private sector and the ways that the private sector can contribute to climate change adaptation efforts. This project implemented by Winrock International works across Bangladesh, Ghana, Guyana, Indonesia, Mozambique, Peru, Tanzania and Vietnam with specific focus on for-profit companies to enable more strategic thinking and investments into how they can reduce risks stemming from climate change impacts to their products, services and infrastructure.[9]

This means that they have to think for example about how supply chains could be disrupted and impacted by extreme events and higher temperatures but also the changing conditions within which their produce is produced. This also includes issues such as potentially increased water insecurity in terms of its availability, quality and access in particular locations.

An Australian example of forward-oriented thinking and strategic planning is the Informed.City tool that has been developed to assist governments, agencies and businesses to gain a more robust understanding of where they are at in considering climate risks and climate adaptation.[10] The tool enables critical reviews of how climate risks are being considered inside a government or company, and how this plays out across such sectors and indicators as public risk register, asset management, and corporate plans.

The tool uses publicly available data to enable the development of a baseline with 10 key indicators that provide the necessary information on the current situation with recommendations on how to improve corporate governance of climate risks and adaptation. The tool enables tracking corporate performance on adaptation and climate risk considerations over time and can effectively pinpoint areas that need more focus and strategic decisions.

Understanding these climate-related challenges to business operations and also the opportunities that support better integration of these issues, will remain crucial for the private sector that aims to maintain the viability of its operations in a changing climate.

Figure 1: Indicators to improve corporate governance of climate risks and adaptation

Strategic Plan	The corporate plan directs how decision-makers in local government must discharge their responsibility under various Local Government Acts. Including considerations of climate change here will likely result in better likelihood for mainstreaming the issue in the council's operations and financial structures.
Financial Management	If ignored, the effects of climate change are likely to have a considerable impact on a council's financial performance. This includes costs associated with asset management, service delivery, legal risk and insurance. Climate change may also affect rateable property value and therefore have the potential to affect council's primary income stream.
Public Risk Disclosure	There is an increasing demand in the private sector for a transparent approach to addressing climate-related risk. A transparent approach means public disclosure of risks. Over time councils can expect insurers and finance providers, amongst others, to request councils to disclose how they are addressing climate-related risk.
Asset Management	Local governments have hundreds of millions (and in some cases billions) of dollars invested in assets. Some of the assets that councils maintain have a long life expectancy and as such may be exposed to direct and indirect climate change risks. This generates a potentially unexplored or under-quantified financial risk for local governments.
Land Use Planning	Land use planning can play a critical role in climate change adaptation. Strategic and local planning decisions can both increase or decrease the exposure of human settlements to climate change impacts. If done well effective land use planning can support climate-resilient and low energy development.
Emergency Management	There are significant opportunities to drive climate change adaptation decision making through emergency management planning. Adaptation has numerous supporting benefits for emergency management including the implementation of risk planning for disaster mitigation and preparedness, response capacity and minimising exposure to reoccurring situations.
Greenhouse Gas Emissions Reduction	Climate change mitigation actions allow for an exploration and promotion of resilient energy systems and passive solar design that may reduce human health-related issues as well as considerable energy savings. Furthermore, it is very likely that climate change adaptation will need to occur in a carbon-constrained economy.
Climate Risk Management	Climate change is a complex issue that will exacerbate existing risks and present new ones. Often climate change risk management is undertaken in an ad hoc way—resulting in inconsistent approaches within an organisation. Some direction that defines how climate change risk is identified and disclosed will greatly improve council's adaptation planning.
Adaptation Planning	Best practice adaptation plans identify the actions required to mitigate specific risks and have mechanisms in place to respond to physical, transitional and liability risks. Adaptation planning helps to set key performance indicators and establish roles and responsibilities across council and more broadly.
Climate Change Policy	An internal Climate Change Policy (or corporate standard/statement of intent) allows the organisation to place a climate change lens over all of council's activities and use the existing system to drive adaptation, risk minimisation and transition to a lower-carbon economy. It can allow for the agreed use of information sources and specific triggers for change.

Source: Informed City.[11]

Climate leadership as an opportunity

As the world is slowly but surely moving towards low carbon economy and where there is more demand for environmentally friendly brands and companies, Australian companies will increasingly need to think how they position themselves. This includes taking clear leadership on climate change action, integrating climate risk disclosure measures into their corporate plans and processes, but also looking for new opportunities that can potentially emerge from green technologies, building designs, or products that can fill a gap in the existing market.

Robust responses to climate change require two significant areas of action: i) mitigation (reducing greenhouse gases); and ii) adaptation (putting proactive plans in place to deal with climate impacts). Both of these are integral especially in the light of forward-thinking approaches that can help companies to foresee how they can reduce climate change problem while also dealing with the impacts.


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For many communities, social and environmental benefits are becoming increasingly important. Companies and services that can show clear benefits to society, for example through social impact investments, will be far better placed in the new economy that we are moving towards. If companies can combine social and environmental benefits and clearly articulate their impact, they can signal significant leadership that both addresses climate change while also delivering benefits to communities.

For example, businesses could partner with social enterprises that have already identified a business need and developed indicators to measure the social and/or environmental impacts that can be traced back to a service or product. From this there is the opportunity to also establish how many greenhouse gases were not released because of low carbon technology choices. In Queensland this also relates to the kind of energy options that companies choose to use: renewable energy options are increasingly becoming cheaper, with most new jobs also found in these sectors when it comes to energy. There are also ways to for example cut inefficiency in production lines, use materials such as recycled construction waste, and be early adopters of new emerging technologies that are environmentally friendly and at the same time reduce costs for businesses.

Given many citizens are increasingly choosing more products that have a smaller environmental impact, the markets are also expanding to new innovative products that use new and different materials and technologies. So rather than seeing climate change related issues as major constraints, there are new opportunities in changing practices and operations so that they deliver higher value with less climate impact. Looking for more unconventional partners, such as innovative start-ups, can enable businesses to develop new markets and products, that as said carry more believability in making change while delivering returns on investment.


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Leadership as transparency

Climate change risk disclosure measures and corporate adaptation governance signals a new way of thinking regarding transparency. This also links to increasing pressure and opportunity for businesses to be more open as to how they are considering risks, what they are doing about those, and how all of this is driving new growth and more responsible investment that has the ability to produce benefits at broader scales.

Companies are now expected to address these environmental issues while also not being "climate laggards" in this space. Insurers, lenders, re-insurers and investors are increasingly aware of the kinds of changing conditions and operational environments that we face, and are changing the way they think and invest. Being transparent about the emerging risks and also the actions that are taken in response is a key indicator of climate leadership, while at the same time it is and should be seen as prudent risk management.

The reality is that our world is changing: Greenland is melting faster than ever before, we are consistently breaking most temperature records across nations and cities and are experiencing a range of unprecedented weather events. For the businesses operating both in Australia and the broader Asia Pacific, this should signal a significant shift in mindset that moves from short-term thinking into longer-term planning.

There are a range of opportunities for how to proceed that include more rigorous understanding of risks and adaptation in corporate governance, partnering with innovative start-ups that are already working to deliver social impact projects and programs, and embedding long-term thinking into corporate plans. In this process, companies that embrace both the "doing good" (reducing environmental impacts and increasing social impact) and the notion of transparency, will continue to do well in a changing climate. This is where the global adaptation science community can also make a significant contribution by working together with businesses to develop and enable evidence-based adaptation.

Notes and references

1 Gareth Johnston et al., *Climate Change Adaptation in the Boardroom* (Gold Coast: National Climate Change Adaption Research Facility, 2013), 68, https://www.nccarf.edu.au/publications/climate-change-adaptation-boardroom.
2 World Economic Forum, *The Global Risks Report 2018*, 13th Edition (Geneva: World Economic Forum, 2018), http://www3.weforum.org/docs/WEF_GRR18_Report.pdf.
3 Ibid.
4 Johanna Nalau et al., 'The Practice of Integrating Adaption and Disaster Risk Reduction in the South-West Pacific', *Climate and Development* 8, no. 4 (2016): 365-375.
5 Task Force on Climate-Related Financial Disclosures (TCFD), *Task Force on Climate-Related Financial Disclosures: Status Report* (Switzerland: TCFD, 2018), https://www.fsb-tcfd.org/wp-content/uploads/2019/06/2019-TCFD-Status-Report-FINAL-053119.pdf.
6 John Price (Commissioner), 'Disclosing Climate Risk', *Australian Securities and Investment Commission*, 2018, https://asic.gov.au/regulatory-resources/corporate-governance/corporate-governance-articles/disclosing-climate-risk/ and Australian Securities and Investment Commission, *Climate Risk Disclosure by Australia's Listed Companies* (Canberra: Australian Securities and Investment Commission, 2018), https://download.asic.gov.au/media/4871341/rep593-published-20-september-2018.pdf.
7 KPMG, *2018 Global CEO Outlook: The Australian Perspective. A year of Cautious Optimism, Digital Crusaders, and Concerns about Protectionism* (Australia: KPMG, 2018), https://assets.kpmg/content/dam/kpmg/au/pdf/2018/global-ceo-outlook-2018-australia-report.pdf.
8 Christopher Flavelle, 'Moody's Buys Climate Data Firm, Signalling New Scrutiny of Climate Risks', *New York Times*, 24 July 2019, https://www.nytimes.com/2019/07/24/climate/moodys-ratings-climate-change-data.html.
9 Winrock International, Building Climate Investment Through Private Investment, *Winrock International*, https://www.winrock.org/project/pier/.
10 Climate Planning, 'About Informed.City', *Climate Planning*, http://www.climateplanning.com.au/about-informedcity.
11 Climate Planning, 'About Informed.City'.