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Corporate Governance for Climate Resilience: Emerging Challenges & Opportunities for Companies in Hong Kong

August 2021

Executive Summary

When the term “Environmental, Social and Governance” (ESG) first appeared in the UN Global Compact report “Who Cares Wins: Connecting Financial Markets to a Changing World” in 2004¹, it was a challenge for companies to incorporate the emerging social and environmental issues into their corporate accountability and governance practices. At that time ESG aspects were mostly evaluated in silo with emphasis inclined towards short-term environmental performances. Over the years, as we experience more extreme weather conditions, local and international policy negotiations, and changing investor and community expectations, ESG has transitioned from an optional practice to a standard for companies to communicate various sustainability and financially material topics. As we redefine what ESG means to business resilience and corporate citizenship, more attention has now been put towards the interactions of “E”, “S” and “G”, especially on how strong corporate governance can build resilience against the physical and transition risks of climate change, and deliver better social and environmental performances, through a top-down approach.

Effective corporate governance for climate resilience requires strong Board oversight to manage climate-related risks and opportunities. Whereas the concept of climate risk and resilience are still at its infancy in Hong Kong, recommendations given by the Taskforce for Climate-related Financial Disclosure (TCFD) has been one of the most referenced frameworks for climate risk management and disclosure. This report gathered views on common corporate climate governance practices in Hong Kong, from listed and unlisted companies, financial institutions, legal consultants, academics and professional institutions, and their efforts towards building capacity on climate resilience. Adopting the eight principles suggested in the World Economic Forum (WEF) *Guiding Principles and Questions for How to Set Up Effective Climate Governance on Corporate Boards*, this report aims to identify the challenges and opportunities for climate resilience through strong corporate governance; and provide recommendations to help companies to become more climate resilient.

Trends of corporate governance practices to build climate resilience

	Observations
Governance	<p>Principle 1 - Climate accountability on Boards Principle 2 – Command of the subject Principle 3 – Board structure</p> <ul style="list-style-type: none">• All interviewed companies expressed that their Board have certain level of oversight on climate-related issues.• Close to half of the companies interviewed have Board-level sustainability committees with two to four meetings annually. These committees exercise their climate oversight through reviewing the annual Sustainability Report, establishing and updating the companies’ sustainability (or climate change) policies, and setting emission reduction targets.• Board culture and awareness on climate change and sustainability have vastly enhanced over the years, through internal trainings, advisory from internal and external expertise, and introducing diversified independent non-executive directors (INEDs) with

¹ https://www.unepfi.org/fileadmin/events/2004/stocks/who_cares_wins_global_compact_2004.pdf

relevant experiences.

- Group sustainability departments play an important role to inform Board discussions on climate resilience, and ideally, to also translate climate change and its impacts into business-related terminologies, monetary terms and/or business risks that could be understood universally.

Risk management

Principle 4 – Material risk and opportunity assessment

- About one-third of the companies interviewed explicitly identified “climate adaptation/resilience” as their materiality metric. Others consider “climate change” as a whole; or more generically, “carbon & energy”, “greenhouse gas emissions” and “energy saving”.
- Two-thirds of the companies interviewed have conducted climate risk assessments to evaluate group and/or asset-wide climate-related physical and transition risks.
- At present, the TCFD recommendation is the most adopted framework for climate-related risk management. Scenarios developed by the International Energy Agency (IEA), Intergovernmental Panel on Climate Change (IPCC) and the Potsdam Institute for Climate Impact Research (PIK) are widely referenced for climate projections.

Strategy

Principle 5 – Strategic integration

Principle 6 – Incentivisation

- Climate change integration is readily seen among listed companies in their strategic planning and Enterprise Risk Management (ERM).
- Climate-related issues are incorporated into company strategies via two approaches – (1) to consider “climate change” as a standalone risk; and (2) to consider climate change as a contributing factor of each type of risks.
- Climate-related performances have been gradually included as key performance indicators (KPIs) for senior management staff and Board directors. One interviewee explicitly stated that climate-related performances are tied to senior management’s remuneration.

Disclosure & Engagement

Principle 7 – Reporting and disclosure

Principle 8 – Exchange

- Two-third of the companies interviewed expressed that they have developed climate resilience measures and over half have been disclosing their climate-related risks according to the TCFD-recommended framework.
 - However, some expressed that the TCFD framework is often seen as an additional reporting structure - compliance with multiple reporting or rating standards has little effect on how climate and ESG risks are assessed and evaluated.
 - Although effective corporate climate governance is often driven from the top, bottom-up initiatives are equally important. Stakeholder engagement, staff awareness training and public
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policy contributions are examples to foster behavioural changes and demonstrate commitment towards climate resilience.

Hurdles to effective corporate climate governance and recommendations

Hurdles

Recommendations

Lack of awareness on climate resilience

- Approaches to tackle climate change have been focused on mitigation with minimal emphasis on adaptation and resilience.
 - Short and medium-length business cycles (i.e. 5 to 10 years) are unable to capture the long-term benefits and gains of climate resilience and the risk of inaction
- Implement incentive programs to encourage companies to consider climate resilience
 - Support awareness raising activities and trainings for Board directors on climate change and sustainability
 - Establish knowledge-sharing networks among industry peers and Board directors

Lack of knowledge and expertise

- Limited understanding of Board directors on specific concepts – such as differences between climate change mitigation, adaptation and resilience
 - The lack of expert consultants available in the market hinders quality assurance and benchmarking of climate risk and resilience studies
 - Understanding results and findings of climate-related studies require subject-specific knowledge, which may be out of scope for ESG and sustainability practitioners
- Provide continuous training on climate risk management and corporate governance
 - Recognise climate resilience and risk assessment professionals

Lack of data and information

- Government data and policy updates are often unavailable or delayed for public access, hindering the comprehensiveness of climate risk assessments
- Develop a city-wide climate resilience strategy
 - Provide open data for climate risk assessments
 - Improve interdepartmental collaborations on climate change and resilience
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Imbalanced disclosures and engagement

- Majority of the listed companies' disclosures are based on the minimum requirements of various sustainability reporting standards, which tend to focus less on corporate governance and climate resilience
 - Lack of clearly defined context-specific reporting standards add difficulties to disclose climate risks
 - Provide guidance on TCFD-aligned reporting
 - Research on policy communication for climate change and sustainability
 - Advocate the business community on corporate governance and climate resilience
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1. Introduction

Climate change has created tremendous risks and opportunities to businesses and the environment. According to the World Meteorological Organisation (WMO), 2020 was the warmest year on record. Global average temperature reached 14.9 °C which was 1.2 °C higher than pre-industrial levels (1850-1900).² Companies are now exposed to more frequent extreme weather events which directly affects their business operations. For instance, the landmark case of Pacific Gas and Electric Company's bankruptcy in California due to bushfires in 2019 demonstrated the importance of embedding climate risk and resilience considerations in business processes – where corporate governance plays a critical role to drive business actions from the top and prepare for any physical and transition risks caused by climate change.

Corporate governance is a relatively new concept that was first introduced in the 1990s. It is defined as “the system by which companies are directed and controlled”.³ The initial aim of corporate governance was to improve corporate decision making through active participation of stakeholders and shareholders. In theory, it accounts organisational behaviour through quantifiable performance indicators, such as operational efficiency, financial returns, and business growth. In practice, however, investors have shown increasing concerns over other aspects of corporate governance such as compliance to the legal and institutional systems, as well as other non-quantifiable indicators including corporate reputation, and labour rights.⁴ The complex mix of quantifiable and non-quantifiable performance indicators is also commonly found in the concepts of corporate social responsibility (CSR), environment, social and governance (ESG) and sustainability.

Nowadays, more and more companies in Hong Kong are taking proactive approaches and seeking to build climate resilience throughout their operations. Commonly adopted practices such as conducting climate risk assessments and developing climate change policies to build climate resilience in businesses require understanding of existing conditions and their projections in future scenarios through a process known as “scenario analysis”.⁵ While there are plenty of analytical frameworks and methodologies available regarding the measurement, assessment and reporting of these risks and opportunities, the Taskforce on Climate-related Financial Disclosure (TCFD)'s recommendations are recognised as the most influential in this space. Out of the four aspects of the TCFD framework, “governance” emphasises the role of Board and senior management structure to oversee climate-related issues. To this extent, external factors such as updates on regulatory requirements, changing investor expectations, stringent compliance standards and fiduciary duties of Board directors are crucial in determining how climate accountability can be exercised within a company. This report explores the two-way relationship between corporate governance and climate change, studies the trends and common practices among corporates in Hong Kong, and provides suggestions to help companies to become more resilient.

² <https://public.wmo.int/en/media/press-release/2020-was-one-of-three-warmest-years-record>

³ Cadbury, Sir A. 1992, Committee on the financial aspects of corporate governance, Gee Publishing.

⁴ <https://openknowledge.worldbank.org/bitstream/handle/10986/26874/673940WP00PUBL0cus100C0Development.pdf?sequence=1>

⁵ Scientifically, scenario analysis for climate resilience often conducted with the aim of minimising the likelihood, exposure and impacts of physical hazards.

Climate Change mitigation, adaptation and resilience

Scientifically, climate change **mitigation** refers to the prevention of a rise in atmospheric temperatures through avoidance and reduction of greenhouse gas (GHG) emissions. Common examples to minimise GHG generated include: the adoption of low-emission energy generation, reducing electricity consumption through energy efficiency, geoengineering, etc.⁶

Climate change **adaptation** and **resilience**, on the other hand, refers to the alteration or adjustment of systems behaviour, economic activities, and the environment against the impacts of climate change. According to the Intergovernmental Panel on Climate Change (IPCC), climate resilience refers to “the outcomes of evolutionary processes of managing change in order to reduce disruptions and enhance opportunities”. A more comprehensive definition from the Organisation of Economic Corporation and Development (OECD) refers climate resilience as “capacity of human and natural systems to learn, adapt and transform in response to risks that are induced or exacerbated by climate variability and change”. The latter emphasises more on the interactions between physical climate impacts and various governance, social, economic and environmental factors.⁷ Examples of reaction to climate-related impacts include: tightening building construction standards, and building river barriers or dams to withstand extreme weather conditions.

For the purpose of this report, we will explore how companies build climate resilience, not only for physical impacts, but also the linkages with transitional and social impacts which may be affected by Government policies, market trends and community expectations towards the boarder topic of climate change. Please note the term “climate change” used throughout the report refers to “mitigation, adaptation and resilience” collectively.

This report is developed based on interviews conducted with local listed and unlisted companies, academics and other industry professionals. The analysis adopts a qualitative approach and is structured with reference to the recommendations given by the TCFD; the Corporate Governance Code developed by the Hong Kong Stock Exchange (HKEx); as well as the World Economic Forum’s (WEF) *Guiding Principles on Climate Governance of Corporate Boards*. This research has the following objectives:

- To describe the trends of corporate governance among companies Hong Kong;
- To identify challenges and difficulties faced by companies in Hong Kong in terms of building climate resilience through corporate governance;
- To identify the enabling factors and best practices of good corporate governance for climate resilience; and
- To provide recommendations to improve climate resilience of companies in Hong Kong through corporate governance.

⁶ <https://www.worldwildlife.org/stories/what-s-the-difference-between-climate-change-mitigation-and-adaptation>

⁷ <https://www.oecd.org/development/climate-resilience/>

2. Why is building climate resilience through corporate governance crucial?

2.1 Regulatory changes related to climate change, ESG and corporate governance

The regulatory environment has evolved quickly over the past few years, with the aim to improve companies' understanding and attention on specific topics such as climate change; as well as responding to changing investors' expectations. Globally, the megatrends observed are inclined towards more emphasis on ESG and climate oversight at Board-level discussions and decision-making processes. As a result, revisions of Corporate Governance Codes (CGC) for listed companies are observed in many jurisdictions, with direction towards linking ESG reporting with corporate governance. For instance, in June 2021, Japan revised their CGC with the aim to improve companies' attentions towards sustainability, ESG and climate-related issues.⁸ The revised CGC requires company Boards to demonstrate leadership through proactive approaches in tackling sustainability (including climate change) issues. Specifically, companies are asked to introduce Board diversity with respect to gender, international and work experiences, and age to ensure sufficient proficiency and capacity on climate change, ESG and other sustainability-related matters. Similarly, the Financial Supervisory Commission of Taiwan, their highest financial regulator, outlined five action plans to improve the Taiwanese corporate governance in their 2020 report *Corporate Governance 3.0 - Sustainable Development Roadmap*.⁹ In particular, the *Roadmap* asks listed companies to disclose climate-related financial information in their mandatory CSR reporting in accordance to the TCFD-recommended framework. It also calls for the incorporation of ESG and climate performances through introducing Board diversity and revising directors' responsibilities.

As climate change and ESG-related issues are gradually incorporated into corporate governance, regulations around transparency of climate-related financial and non-financial disclosure have become more stringent. For instance, countries such as France, Australia, the United Kingdom (UK) and New Zealand have been working to introduce climate risk reporting rules for companies. Since 2015, France mandated institutional investors and asset managers to disclose the physical and transition risks of climate change and its effect on their operations and investments. In Australia, the Australian Securities and Investments Commission (ASIC) revised regulatory guidance in 2019 to ensure material climate risk disclosures in prospectuses, operating and financial reviews. The UK and New Zealand took a step further, expecting companies to align their climate risk reporting with TCFD recommendations. The Financial Conduct Authority calls for premium listed companies in the UK to improve disclosures of climate risks starting from January 2021 and looks to introducing mandatory TCFD-aligned climate reporting across the country by 2025. More recently, New Zealand became the first country in the world to mandate TCFD disclosure for asset managers – a rule that will come into force in 2023.¹⁰ Under this rule, large financial institutions, including banks, institutional investors and insurers in the country are required to report on governance, risk management and strategies to reduce climate change impacts based on the TCFD framework.

A similar regulatory trend can also be observed in Hong Kong. HKEx revised the ESG Reporting

⁸ <https://corp.gov.law.harvard.edu/2020/01/18/2020-global-and-regional-corporate-governance-trends/>

⁹ https://www.fsc.gov.tw/fckdowndoc?file=/Corporate%20Governance%203_0%20-%20Sustainable%20Development%20Roadmap.pdf&flag=doc

¹⁰ <https://www.eyeonesg.com/2021/04/new-zealand-introduces-mandatory-climate-disclosure-law/>

Guide in 2019¹¹ to incorporate climate change, requiring listed companies to develop a Board statement which addresses ESG issues through a top-down management approach; policies that identify and reduce significant climate-related issues; have a key performance indicator (KPI) description of the impacts of, and action taken to respond to, significant climate-related issues; and set targets to mitigate climate change.¹² Furthermore, HKEx published a supplementary guide for Board and directors on the leadership and accountability role in ESG to further explain the role of company Boards when integrating ESG and climate-related issues to the governance processes.¹³ In order to assist listed companies in assessing the reporting of their climate risks and opportunities, the Securities and Futures Commission (SFC) launched a Strategic Framework for Green Finance in 2018 to encourage asset managers to report on climate risks and is now proposing requirements for fund managers to take climate-related risks into account in the process of investment and risk management. In May 2020, the Green Sustainable Finance Cross-Agency Steering Group was established, with the aim to coordinate the management of climate-related risks to the financial sector. In December of the same year, the Group announced a strategic plan to build and strengthen the financial sector to achieve a more sustainable future, with a mandatory target to align TCFD recommendations with climate-related disclosures across relevant sectors by 2025.¹⁴

All the above cases showcase the international and local policy efforts to advance climate resilience through the means of corporate governance, signifying the importance for companies to place their focus on it accordingly.

2.2 Changing expectation of investors and public awareness on climate change

Both private and institutional investors are becoming more environmentally conscious, so ESG issues are becoming increasingly relevant in their investment decisions. More recently, the pandemic has also intensified the sense of urgency around climate resilience and elevated the importance of TCFD reporting practices. From January through November 2020, it was observed that asset managers in mutual funds and exchange-traded funds invested \$288 billion globally in sustainable assets, representing a 96% increase over the whole of 2019.¹⁵ BlackRock chief executive Larry Fink's letter to Chief Executive Officers (CEOs) emphasised the need for boards to place climate change at the centre of their strategy consideration, as it is a defining factor in a corporate's long-term prospect. Similarly, other institutions such as the Asia Investor Group on Climate Change (AIGCC) have put a lot of effort in promoting strong commitments in addressing various climate risks and opportunities, as shown by a growing number of initiatives, such as the Net Zero Asset Owner Alliance and Climate Action 100+. The former is a coalition of 33 international investors that represent US\$5.1 trillion assets under management, while the latter is a worldwide network of 545 investors that represent US\$52 trillion in assets. These initiatives encourage institutional investors to decarbonise investment portfolios, implement strong governance framework on climate change and provide enhanced corporate disclosure.¹⁶

¹¹ The review of the HKEx Environmental, Social and Governance Guidelines and related Listing Rules consultation commenced in 2019. The 2019 amendments are effective for issuers' financial years commencing on or after 1 July 2020.

¹² [https://www.hkex.com.hk/-/media/HKEX-Market/News/Market-Consultations/2016-Present/May-2019-Review-of-ESG-Guide/Conclusions-\(December-2019\)/cp201905cc.pdf?la=en](https://www.hkex.com.hk/-/media/HKEX-Market/News/Market-Consultations/2016-Present/May-2019-Review-of-ESG-Guide/Conclusions-(December-2019)/cp201905cc.pdf?la=en)

¹³ https://www.hkex.com.hk/-/media/HKEX-Market/Listing/Rules-and-Guidance/Environmental-Social-and-Governance/Exchanges-guidance-materials-on-ESG/directors_guide.pdf?la=en

¹⁴ <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2020/12/20201217-4/>

¹⁵ <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>

¹⁶ https://www.aigcc.net/wp-content/uploads/2021/07/CA100-Engagement-Guide_English_updated.pdf

Individual investors are also becoming progressively interested in sustainable investing. Aside from preferring companies that assess and manage climate-related risks, retail investors, especially millennials and Generation Z, who are experiencing more frequent and severe impacts brought by climate change than the older generations when they were at the same age, are expecting companies to pursue positive social and/or environmental objectives. In 2017, Morgan Stanley's Institute for Sustainable Investing surveyed active individual investors and found that 86% of millennials favoured companies that can provide market-rate financial returns as well as strive for positive social and/or environmental impacts.¹⁷ Compared to the total individual investor population, millennials are twice as likely to invest in companies with social or environmental goals. Among Generation Z, one study found that 94% of them believed companies should address social and environmental issues.¹⁸ These trends clearly show the shifting expectations from the new generations of private investors which companies simply cannot afford to ignore.

Aside from greater demand for responsible investment, there has also been a rise in shareholder activism and active ownership. Shareholders are becoming more active in exercising their rights, engaging the company to discuss ESG issues and working to change boards and policies to make corporate practices more ethically and ecologically sound. For instance, the "School Strike for Climate" founded by Greta Thunberg and Extinction Rebellion movement since 2018 are examples of how climate change could garner strong public interests within short period of time, affecting corporate decision-making. There is a greater expectation for Boards to understand these issues and to be able to explain to investors how they have taken them into consideration when overseeing the corporate strategy and its implementation.

2.3 Increasingly material to businesses

To most companies, climate change is a material risk that affects business development and operations. From adapting to physical events such as extreme weather conditions, to responding to local and international policies, investors' expectations and low-carbon technological advancement, addressing climate change should no longer be treated as a box-ticking exercise in the corporate agenda. The rise of TCFD and its recommendations clearly illustrate the importance to integrate climate risks to corporate governance and risk management. Here, climate risks can be further divided into physical and transition risks with different implications.

Physical risks

Physical risks, according to the TCFD recommendations, is a result of shifting climatic patterns. It may be further divided into acute and chronic risks. Acute risks are usually event-driven, such as heavy rainstorms, typhoons and bushfires. Chronic risks are observed through changing climatic patterns over longer period of time.^{19 20}

Acute physical risks have drawn businesses' attention over the years with their immediate impacts on assets impairment and supply chain disruptions. For five consecutive years, extreme

¹⁷ https://www.morganstanley.com/pub/content/dam/msdotcom/ideas/sustainable-signals/pdf/Sustainable_Signals_Whitepaper.pdf

¹⁸ <https://www.conecomm.com/research-blog/2017-genz-csr-study#download-the-research>

¹⁹ <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf>

²⁰ <https://www.oecd.org/corporate/ca/TCFD-Climate-Report.pdf>

weather has been rated as one of the top global risks faced in terms of likelihood and impacts, according to the WEF.²¹ In the context of Hong Kong, damages to buildings and infrastructure caused by more frequent extreme weather conditions, such as heavy rainstorms, flooding and super typhoons are examples to explain why companies have prioritised physical risks in their materiality and risk assessments.

Chronic physical risks, on the other hand, bring both direct and indirect impacts to companies. For instance, sea level rise and increasing average temperatures have and will continue to affect the supply of raw materials, and subsequently increasing the operational and maintenance costs of production lines.²² In financial terms, a Nature study in 2016 suggested that the “climate value of risk”²³ of global financial assets by 2100 is estimated to be up to US\$24.2 trillion.²⁴ As such, companies is expected to gradually incorporate long-term physical climate risks to their enterprise risk management, with estimation and forecast in monetary terms. The urge to build climate resilience also brought companies to rethink their climate assessment models - to expand their study from the likelihood of future climate hazards and impacts to adopting reference scenarios, and potentially interactions with other socioeconomic impacts.²⁵

Transition risks

Transition risks are risks associated with the transition to a low-carbon economy,²⁶ which could be categorised into: (1) policy and legal, (2) technology, (3) market, and (4) reputation risks.

To achieve the carbon neutrality goal by 2050, Hong Kong Government is setting bold targets including market incentives to drive companies to transition to a low carbon economy. For instance, the Government Green Bond Programme to finance decarbonisation projects; and Green Bond Grant Scheme to subsidise green bond issuers. Other regulatory changes such as rising stringency of energy efficiency standards, phasing out of diesel-powered vehicles (i.e. banning the registration of Internal Combustion Engine private vehicles by 2035) and alignment of financial institutions’ climate-related financial disclosure to the TCFD recommendations have pushed companies to reconsider their business model and divert more resources to climate change and sustainability. Furthermore, the establishment of the Hong Kong Green Finance Association (HKGFA) also encourages companies to invest on low-carbon technologies.²⁷ Legally, the combination of local and international policy changes, and the market trend have a growing influence on business decision making and compliance. Using an Australian example, the refusal of development consent of the coal mine project in Gloucester Valley, New South Wales, was the first case of its kind in Australia, addressing the negative impacts of climate change and greenhouse gas emissions in the mining industry, after receiving strong opposition

²¹ http://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2021.pdf

²² https://time.com/6075342/climate-change-air-travel/?utm_campaign=Hot%20News&utm_medium=email&_hsmi=136203486&_hsenc=p2ANqtz-_OllRgSBCvaf_IKIDH2hGh6QZTxPFXkA9Jay1ofi21IYWFAratOFy9P4R5C95RYaDie7-ls1TlI8b271cqPGDwaw-bAA&utm_content=136203486&utm_source=hs_email

²³ “climate value at risk” refers to the estimated present value of losses on global financial assets at given probability due to impact brought by climate change. The bigger the magnitude of climate impact, the greater the loss.

²⁴ <https://www.nature.com/articles/nclimate2972.pdf>

²⁵ https://impaxam.com/wp-content/uploads/2020/09/20200924_physical_climate_risk.pdf

²⁶ <https://www.bankofengland.co.uk/knowledgebank/climate-change-what-are-the-risks-to-financial-stability>

²⁷ https://www.hkgb.gov.hk/en/others/documents/GBF_finalised_dated_28_March_2019.pdf

from green groups and the local community.^{28 29}

Rapid technological improvements and innovations also interfere with business development and operations as technological risks. A study conducted by Climate Wise and the University of Cambridge Institute for Sustainability Leadership (CISL) suggested that policies and investments driving low-carbon transition have created market demand for energy efficient and low carbon products.^{30 31} Companies are motivated to develop new and creative technologies to address climate change while meeting wider public interests and maintaining corporate reputation. For instance, to further decarbonise the energy sector, gradual phase out of coal mines is coupled with advancing carbon capture, utilisation and storage technologies, efficiency enhancement of renewable energy generation and researching on green hydrogen production. In Hong Kong, companies have also introduced social technologies to their products and deliverables, incorporating climate change and community interests at the same time.

Liability risks

There has been an increase in climate-related litigations claims globally being brought before courts. According to the Grantham Institute of Climate Change and the Environment of the Imperial College London, up to 1,587 relevant cases have been identified between 1986 to May 2020.³² With more Governments and financial institutions requiring companies to disclose climate-related financial risks and impacts, the patchwork of requirements at international level are becoming increasingly stringent, posing liabilities and litigation risks.³³ With increasing value of losses and damages stemmed from climate change, litigation risks could be derived from (1) the understanding of companies' climate-related risks and exposures and the scope of disclosures, (2) changes in values of assets, and (3) accuracy of risks disclosures.³⁴ If companies fail to clearly disclose their climate-related financial risks, they might be subjected to litigation risks regardless of its recklessness and fraudulence.³⁵ A recent case brought by the Dutch court ordered Royal Dutch Shell to cut 45% of its global carbon emissions by 2030.³⁶ The case argued that Shell's sustainability policy failed to comply with the Paris Agreement and demonstrate their duty of care towards climate change.³⁷ This is a remarkable case of its kind, which sets the scene for more climate-related orders, such as significant carbon emission reduction, target setting and Board involvement, for the oil and gas industry worldwide.

Litigation risks pose both direct and indirect impacts to companies, from heavy legal fees,

²⁸ <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/audit/deloitte-au-audit-clarity-disclosure-climate-related-risks-070220.pdf>

²⁹ <https://corrs.com.au/insights/nsw-land-and-environment-court-refuses-development-approval-for-rocky-hill-coal-mine-project-on-climate-change-grounds>

³⁰ <https://www.cisl.cam.ac.uk/resources/publication-pdfs/cisl-climate-wise-transition-risk-framework-report.pdf>

³¹ <https://www.oecd.org/corporate/ca/TCFD-Climate-Report.pdf>

³² https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2020/07/Global-trends-in-climate-change-litigation_2020-snapshot.pdf

³³ Global trends in climate change litigation: 2020 snapshot

³⁴ <https://www.lexology.com/library/detail.aspx?g=9a768f56-002b-45ac-a700-0ea04a67ab60>

³⁵ Recklessness to disclose climate-related risks refers to companies unknowingly misled disclosure or inaccurate risk assessment to the public while fraudulence to disclose means that companies intentionally sign off on a non-compliant disclosure report.

³⁶ <https://www.theguardian.com/business/2021/may/26/court-orders-royal-dutch-shell-to-cut-carbon-emissions-by-45-by-2030>

³⁷ <https://www.bloomberg.com/news/articles/2021-05-25/court-decision-to-test-shell-s-responsibility-for-climate-change>

extent of damages, to reputation risks that can affect investor and shareholder perception. In case of impaired public relations and company images, stock prices may also be affected.³⁸ In July 2018, Australian pension fund member Mark McVeigh sued his pension fund trustee Retail Employees Superannuation Trust (REST) for failing to disclose climate-related financial and business risks and plans to address these risks. Resulted in a settlement, REST agreed to integrate climate risks in its investment policies. This case set the scene for institutional investment trustees on their climate risk governance, to consider interests of the wider community on climate change and sustainability.³⁹ Whereas similar *ex ante* legal actions⁴⁰ like the McVeigh case are expected to increase, financial institutions and other companies need to respond with resilience in mind and think beyond the business-as-usual (BAU) scenario.⁴¹

2.4 Fiduciary duty

Fiduciary duty refers to the responsibility of directors to act in good faith and the best interest of the corporate. Under Cap. 662 Companies Ordinance Section 465 (2) in Hong Kong, a director has the duty to exercise reasonable care, skill and diligence that would be exercised by a reasonably diligent person with: (1) the general knowledge, skill and experience that may reasonably be expected of a person carrying out the functions carried out by the director in relation to the company; and (2) the general knowledge, skill and experience that the director has.⁴² This responsibility has conventionally been linked to the corporate financial performance, but more and more so, environmental considerations need to be taken into consideration by directors, as there has been a market shift in the understanding of climate change as a foreseeable and material financial risk.

In the climate change context, a director may risk breaching their duty of care and diligence in circumstances where there is (1) a total failure to consider and govern for foreseeable and financially material climate risks; (2) inadequate consideration or governance of climate risk; (3) a failure to critically evaluate advice; (4) a failure to monitor and oversee a robust corporate risk and reporting system that identifies and manages climate risks; and (5) a breach by the corporate of misleading disclosure laws.⁴³ Given the broadened definition of fiduciary duties, litigation against directors who have failed to exercise due care will also increase in the foreseeable future.

Several jurisdictions like Australia, Canada and the UK have begun to increase the risk of liability to directors and fiduciaries. The ASIC in Australia has made public statements about climate risks and stressed the importance of directors to account for those and ensure strong effective governance practices in their companies. “Laws in the UK and South Africa expressly oblige, and in Canada permit, directors to have regard to the ‘environment in its own right in their

³⁸ Global trends in climate change litigation: 2020 snapshot

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

³⁹ <https://www.lexology.com/library/detail.aspx?g=b9f28de8-abf8-4a31-973d-1aff6357ec9a>

⁴⁰ *Ex ante* is Latin for something based on assumption or prediction. *Ex ante* legal actions, in this case, refers to legal actions that occur before an actual event happened. McVeigh sued his pension fund trustee for not considering climate risks, before the risks are realised.

⁴¹ <https://www.unepfi.org/wordpress/wp-content/uploads/2021/04/UNEPFI-Climate-Change-Litigation-Report-Lowres.pdf>

⁴² <https://www.elegislation.gov.hk/hk/cap622!en>

⁴³ <https://ccli.ouce.ox.ac.uk/wp-content/uploads/2019/10/CCLI-Directors%E2%80%99-Liability-and-Climate-Risk-Comparative-Paper-October-2019-vFINAL.pdf>

pursuit of the best interests or success of the company”.⁴⁴ In the long term, non-shareholders may be able to bring claims against a fiduciary for breaching his or her duty in Canada. Overall, there is a growing expectation for directors to approach climate governance as they would with other financial matters.

2.5 Changes in insurance sector

Insurance companies are also increasingly factoring climate and other ESG issues into their risk modelling and decision-making processes. The rising frequency and severity of extreme weather events have driven insurers to better account for, model and manage climate-related impacts. They are also becoming more aware of the medium to long-term outlook on climate change and the associated risks. The WEF identified the failure to reduce climate change as the number-one risk in terms of worldwide potential impact in its Global Risks Report 2020.⁴⁵ As a result, insurers are progressively pushing for more aggressive climate actions. For example, the world’s largest insurers, such as Allianz, Aviva, AXA Group, CNP Assurances, Zurich Insurance Group, are part of the Net Zero Asset Owner Alliance that aims to align investment portfolios with a 1.5°C scenario.⁴⁶ Several insurers have also begun to develop climate change-related products and services. The German insurer Munich Re has developed a “parametric” weather insurance for 400 million people living in developing countries.⁴⁷ In Hong Kong, Swiss Re has also developed “Insur8”, the first-ever typhoon warning insurance products for companies in Hong Kong, to address potential financial losses and additional operational costs stemming from a typhoon warning signal 8 or above.⁴⁸ The importance of accounting for impacts of climate change is growingly recognised in the insurance sector in Hong Kong, owing to the growing number of catastrophic weather events. Allianz estimates that storm damage and losses were the most common reason for corporate insurance claims in Hong Kong from 2013 to 2018, totalling US\$25.4 million.⁴⁹

⁴⁴ <https://ccli.ouce.ox.ac.uk/wp-content/uploads/2019/10/CCLI-Directors%E2%80%99-Liability-and-Climate-Risk-Comparative-Paper-October-2019-vFINAL.pdf>

⁴⁵ http://www3.weforum.org/docs/WEF_Global_Risk_Report_2020.pdf

⁴⁶ <https://www.unepfi.org/net-zero-alliance/>

⁴⁷ <https://insuranceblog.accenture.com/four-examples-of-climate-change-insurance-innovation>

⁴⁸ <https://corporatesolutions.swissre.com/innovative-risk-solutions/innovative-natcat-covers/insur8.html>

⁴⁹ <https://sg.news.yahoo.com/insurance-claims-could-reach-time-230420103.html>

3. Findings and analysis

Most of the large companies in Hong Kong are regulated. Depending on their industry and size, some may fall under the remit of the HKEx (e.g. listed companies) and/or the Hong Kong Government (e.g. utilities). The presence of a regulator is by far the biggest incentive that drives companies to develop a corporate governance structure that aligns with changing policy regulations and investor expectations. In the context of climate change, companies are more aware of the potential physical and transition risks brought by extreme weather events, as well as local, regional and international policy negotiations. As such, for companies to build climate resilience, corporate governance plays important roles to respond to these challenges proactively.

This section draws findings from the thirty-three interviews across listed and unlisted companies, academia, legal and finance professionals and other professional institutes. The analysis is structured with reference to the TCFD recommendations, HKEx Corporate Governance Code, and WEF's *Guiding Principles and Questions for How to Set Up Effective Climate Governance on Corporate Boards*⁵⁰. The eight principles for effective climate governance suggested by the WEF are listed below:

- Principle 1 – Climate accountability on boards
- Principle 2 – Command of the subject
- Principle 3 – Board structure
- Principle 4 – Material risk and opportunity assessment
- Principle 5 – Strategic integration
- Principle 6 – Incentivisation
- Principle 7 – Reporting and disclosure
- Principle 8 – Exchange

3.1. Governance

The studies conducted by KPMG, the Hong Kong Institute of Chartered Secretaries (HKICS) and CLP Holdings Limited in 2017⁵¹ and 2020⁵² stated that the top three barriers faced by business leaders to address ESG or climate-related issues strategically are namely: (1) insufficient knowledge and expertise; (2) perceived ESG to be insignificant to business impacts; and (3) limited immediate returns observed. Both studies concluded that Board involvement and oversight is an important first step to tackle the problem. In the context of climate change, a similar approach should also be expected through improved corporate governance. It is suggested that a top-down approach can improve corporate reputation, operational efficiency, and the risk management processes.

Climate accountability on Boards

The understanding of climate accountability at Board level varies across industries. Whereas the WEF guidelines concerns integration of climate-related risks and opportunities to Board's

⁵⁰http://www3.weforum.org/docs/WEF_Creating_effective_climate_governance_on_corporate_boards.pdf

⁵¹https://www.hkics.org.hk/media/publication/attachment/PUBLICATION_A_2420_ESG_Survey_Report_EN.PDF

⁵² <https://assets.kpmg/content/dam/kpmg/cn/pdf/en/2020/01/integrating-esg-into-your-business.pdf>

responsibility, strong climate accountability also enables company Boards to make strategic decisions related to climate risk management, as well as setting and reporting climate-related goals and targets.⁵³ Referencing HKEX’s seven-part framework⁵⁴, strong Board oversight should start with establishing a governance structure, followed by an agreed definition and prioritisation of the subject matter. It should then follow a series of measurement, reporting and verifications, and finally communication and disclosure of assessment findings. In the context of climate change, a similar framework should apply to illustrate a strong Board oversight to integrate relevant considerations in the early stage of decision making, as well as making sure that the right tools and resources are being allocated. Figure 1 indicates the seven-part framework on Board’s climate oversight.

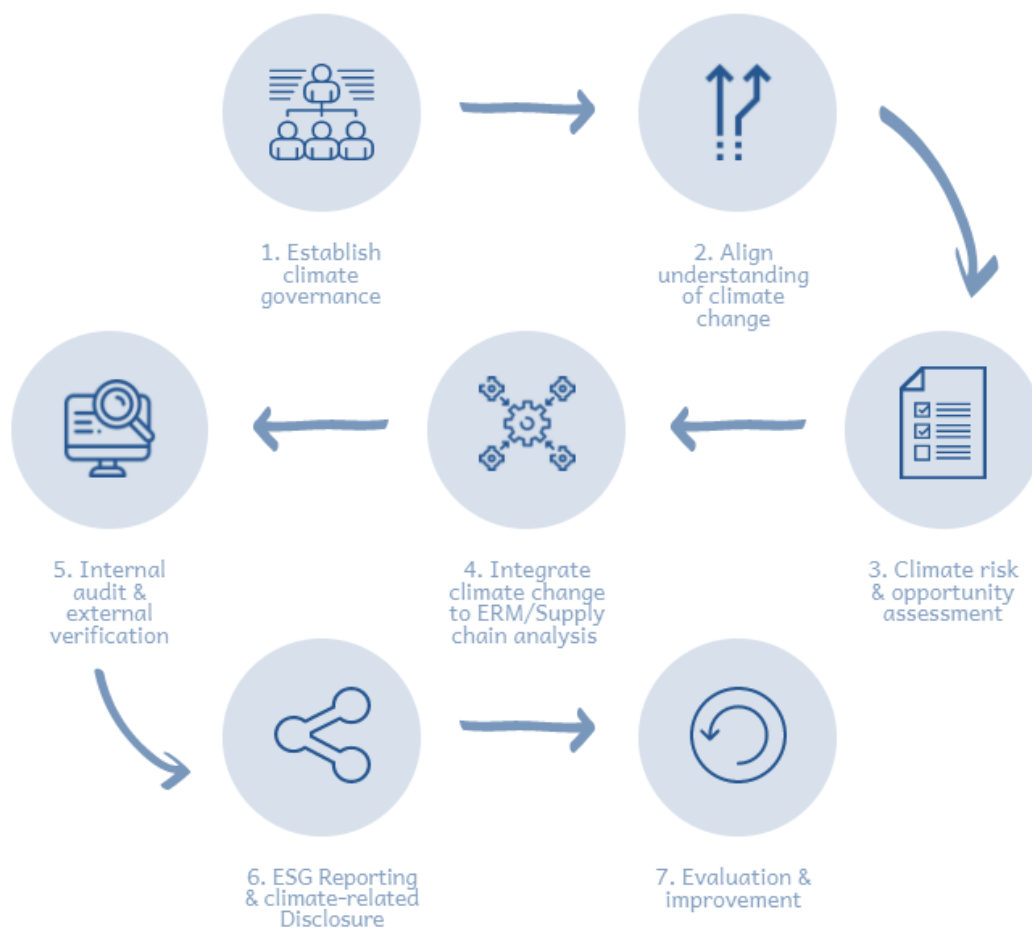


Figure 1. Strong Board oversight is key to integrate climate change to corporate decision-making. (Source: HKEx)

All listed companies interviewed have identified themselves with a certain level of Board oversight on climate-related issues. Over half of them have explicitly stated that the Board has overall responsibility for the corporate’s sustainability strategy, including but not limited to: reviewing the annual Sustainability Report, establishing and updating the companies’ sustainability (or climate change) policies, and setting emission reduction targets.

⁵³ <https://assets.kpmg/content/dam/kpmg/cn/pdf/en/2020/08/better-business-reporting-climate-governance.pdf>

⁵⁴ https://www.hkex.com.hk/-/media/HKEX-Market/Listing/Rules-and-Guidance/Environmental-Social-and-Governance/Exchanges-guidance-materials-on-ESG/dir_sevenpart.pdf?la=en

Even though companies expressed their interests and prioritisation on the subject matter, it is inevitably difficult to compare such levels of importance between individual companies. Firstly, definition and classification of climate-related issues vary between industries, corporate nature and sizes. For instance, materiality metrics such as emission reduction, climate change, energy saving can have overlapping meanings. At present, there is no standardised definition or scope as to what needs to be covered in these metrics. Other metrics such as training and development, community engagement and policy participation may cover climate-related issues but are often not considered directly relevant to the climate agenda. Secondly, some companies have reflected that their Board discussions tend to consider climate change on a need basis. In other words, climate change is not a routinised item on the Board meeting agenda. Board directors bring up the topic when there are regulatory updates, industrial trends, and events. These drivers are sometimes referred as “window of opportunity” where decision-makers bring the subject matter to the discussion table to communicate for a change or response.

A recent publication released by the HKEx⁵⁵ suggested that best-performing companies on corporate governance and ESG tend to emphasise Board oversight towards leadership. As the concept of ESG, corporate and climate governance evolves, good governance and environmental performances have transitioned from a corporate philanthropy practice to an illustration of corporate social and environmental responsibility. As mentioned in the previous section, Board directors need clearly defined fiduciary duties regarding climate governance. While it is observed with gradual development of the resilience mindset and capacity building in the context of climate change, the Board should also consider the interactions between “E”, “S” and “G”, for governance is the enabler for better environmental and social performances.

Apart from Board oversight, climate accountability can also be reflected through internal audits and reviews conducted within the Board. This may include revising the sustainability governance structure, level of Board oversight on climate-related issues, evaluating performances of Board directors, as well as approaches to assess climate risks and opportunities.⁵⁶ This will be explored further in the next section.

Command of the subject

In order to demonstrate leadership and accountability, strong corporate climate governance requires a synchronised understanding of the subject matter from the Board, senior management to operational staff. To this extent, climate change and sustainability proficiency can be recognised as Board foci through: (1) recruitment of relevant experts to the Board; (2) provision of regular trainings to Board members on latest development and updates of the subject matter; and (3) Board discussions to embed related concepts.⁵⁷

In terms of Board expertise, a few directors among the companies interviewed have related experiences through acting in capacity as independent non-executive directors (INED) of an environmental organisation, as well as sitting in environmental or sustainability related committees such as the Council for Sustainable Development of the HKSAR Government.

⁵⁵ https://www.hkex.com.hk/-/media/HKEX-Market/Listing/Rules-and-Guidance/Corporate-Governance-Practices/Practitioners_insights.pdf?la=en

⁵⁶ <https://corpgov.law.harvard.edu/2019/11/25/running-the-risks-how-corporate-boards-can-oversee-environmental-social-and-governance-issues/>

⁵⁷ https://www.ceres.org/sites/default/files/reports/2017-03/ceres_viewfromthetop.pdf

Otherwise, companies also reflected that they rely on the internal sustainability department to advice on climate-related matters. In some cases, a separate sustainability advisory committee is established which comprises of internal and external consultants to provide recommendations to the Board.

As discussed in previous sections, changing investors and insurers' expectations have driven raise in awareness on climate and sustainability-related issues among Board directors. While most companies pointed out that directors generally understand the relevant concepts and trends, many think that the Board does not possess in-depth knowledge regarding climate change, particularly on its magnitude, impacts and relationships to business operation – let alone having a climate resilience mindset. A few companies have reservations on whether the Board directors possess sufficient knowledge or understanding to make judgements and decisions on climate-related issues due to its technical nature. For instance, concepts such as “climate adaptation”, “climate resilience”, “decarbonisation” and “emission reduction” are sometimes used interchangeably and directors may not be able to distinguish the nuances between them.

Some companies have also expressed concerns regarding their feasibility and effectiveness of climate resilience capacity building. Capacity building through regular training is seen to be most desirable and useful. However, operationally, an interviewee pointed out that it would be time- and resource- intensive to schedule a suitable timeslot for all directors to attend in-person training sessions. A bigger problem is although trainings can improve directors' proficiency on the subject matter, there is still a value-action gap to drive behavioural change and influence corporate decision-making. A better approach is to translate climate change and its impacts into business-related terminologies, monetary terms and/or business risks that could be understood universally. Peer pressure among directors is also considered useful in raising awareness.

Pain point 1: Lack of awareness on climate resilience

Insufficient understanding of climate change and sustainability is by far the biggest hurdle to overcome in order to establish effective corporate climate governance. According to a survey conducted by PwC in 2020, only half of the Board directors indicated that their companies have strong understanding on the impacts of ESG and climate change to business operations, and even less when it comes to translating climate impacts to financial impacts. Most of the corporate executives and senior management polled agreed that Board's understanding remains insufficient.⁵⁸

As a result, many companies tend to focus on climate mitigation than resilience in shorter terms, overlooking chronic physical and transition risks, as well as impacts to the supply chain. This mindset also impedes the ability of companies to comprehend the long-term value brought by climate-related opportunities and efforts towards building climate resilience. To this extent, companies interviewed reflected that it is sometimes difficult to convince senior management and the Board to take actions especially when the return of investment (ROI) falls beyond their normal business cycles (i.e. 5 to 10 years).

Apart from top management, limited awareness is also observed among operational staff. Climate resilience is a technical topic, filled with jargons. This is particularly difficult for staff whose scope of work has no direct relation to climate change, and they tend to find themselves irrelevant with lower willingness to adapt to changes – especially if they do not understand the reason behind such changes.

Case Study

Sustainability Advisory Committee at Link REIT

Link's Sustainability Advisory Committee (SAC) chaired by their Board Chairman, comprises sustainability experts across various industries including retail, transportation, academia, technology, food & beverage and non-Governmental organizations. The SAC brings diverse perspectives to their sustainability challenges and provides an additional channel for constructive feedback from the external community. This enables a high degree of communication, transparency and alignment with various stakeholders which is conducive for more inclusive and effective strategic responses to different challenges they face, exemplifying their Business as Mutual ethos.

Since its establishment in 2014, the SAC has strongly influenced Link's approach to environmental, social and governance issues, playing a key role in shaping corporate decision-making to create shared value throughout the ecosystem. By keeping them up to date on emerging sustainability trends from around the world, including alignment of ESG definitions, carbon pricing and Net Zero, the SAC is a much valued and appreciated resource that contributes to the ongoing improvement of Link's long-term resilience and ESG leadership.

⁵⁸ <https://www.pwc.com/us/en/services/governance-insights-center/library/annual-corporate-directors-survey.html>

Board structure

Apart from subject command, structures of corporate Boards are critical to its climate accountability. According to the HKEx corporate governance structure⁵⁹, accountability is determined by: (1) composition of the Board; (2) role and responsibility of Board-level stakeholders; and (3) Board interactions with different levels of management and staff.

On 16 April 2021, HKEx released a new consultation paper on the “Review of Corporate Governance Code and Related Listing Rules”⁶⁰ to strengthen the connections between ESG and corporate governance⁶¹, as well as promote Board diversity and director’s independence. To this extent, connecting ESG or climate-related issues with corporate governance requires strong involvement of the Board. Close to half of the listed companies interviewed have a board-level structure⁶² that exercises oversight on sustainability matters, which includes ESG and climate-related issues (Figure 2).

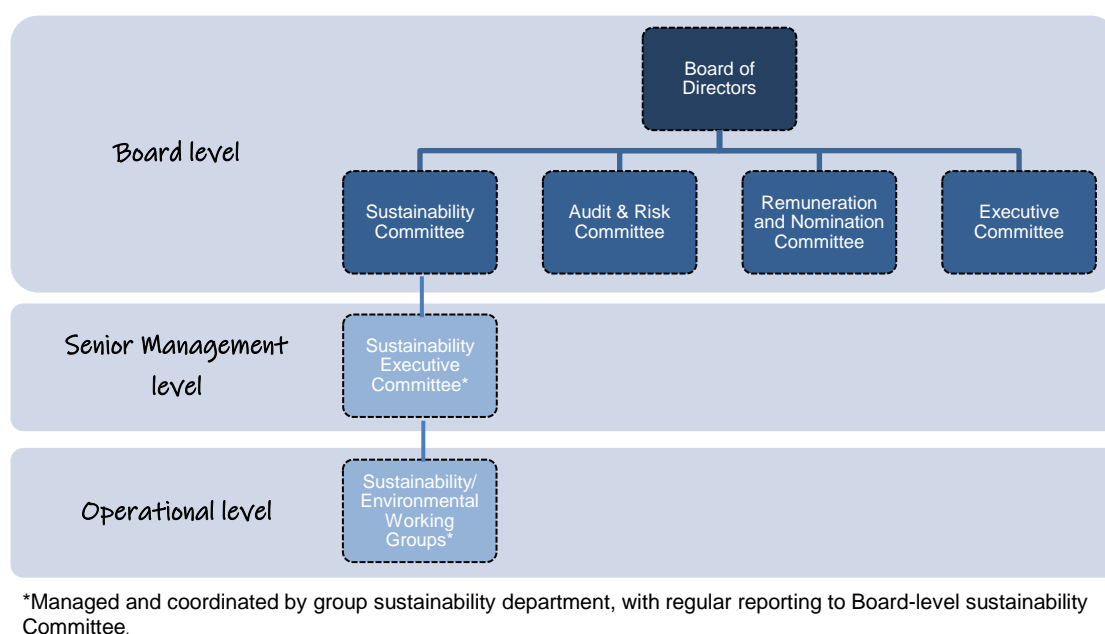


Figure 2. Sustainability governance structures with a Board-level sustainability committee

For those that have a Board-level sustainability governance structure, the committees usually comprise of 3 - 8 regular members with a mix of Independent Non-Executive Directors (INEDs), Non-Executive Directors (NEDs) and Executive Directors (EDs). It is common for either the CEO

⁵⁹ https://www.hkexgroup.com/Corporate-Governance/Corporate-Governance-Framework/Corporate-Governance-Structure?sc_lang=en

⁶⁰ <https://www.hkex.com.hk/-/media/HKEX-Market/News/Market-Consultations/2016-Present/April-2021-Review-of-CG-Code-and-LR/Consultation-Paper/cp202104.pdf?la=en>

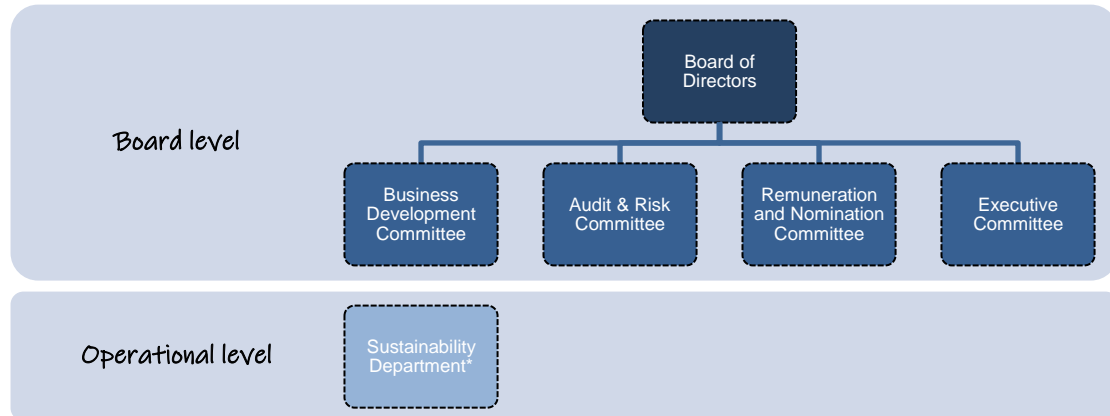
⁶¹ <https://www.mayerbrown.com/en/perspectives-events/publications/2021/04/new-esg-and-gender-diversity-requirements-for-listed-companies-and-ipo-applicants-proposed-by-hong-kong-stock-exchange>

⁶² Board-level structure refers to a board-level sustainability committee, usually chaired by the chairperson or independent non-executive director (INED) of the company Board, with members being other directors of the Board. Name of the committee varies, including sustainability committee, sustainable development committee, environmental committee, etc.

of the company, who is an ED of the Board, or the Chairperson of the Board to be chairperson of the committee. Through such arrangement, it is ensured that sustainability matters are discussed and communicated across the Board and senior management level. Here, more discussions around the role of INED have been observed in recent years, partly to address the concern of “groupthink”⁶³, and partly to introduce a variety of expertise to the Board.⁶⁴ INED is increasingly important in terms of introducing new views and perspectives during Board discussions.

In terms of meeting frequency, companies reflected that at least one Board-level sustainability committee meeting is held each year. Approximately half of them have specified that meetings are held on a biannual basis at the minimum, and some would even hold sustainability committee meetings quarterly. One company has held more meetings than required in the Terms of Reference of the Committee. In such meetings, climate change itself is sometimes a standalone agenda item, although climate resilience may not often be the focus. Otherwise, it may also be embedded throughout the meeting agenda.

The alternative to a Board-level sustainability committee involves regular reporting by the sustainability department (Figure 3). These sustainability committees are responsible for overseeing and managing sustainability issues in the companies’ daily operations. Throughout our interviews, around one-third of the senior management sustainability committees are chaired by the C-Suite, with approximately one-fifth of the committees headed by the CEOs. EDs and the Head of Sustainability or the senior management staff responsible for sustainability are also commonly found to be the Chair of senior or executive level sustainability committees. As for frequency, around one fifth of them report to the Board quarterly or more per year, and the majority report twice or thrice annually.



*Regular reporting by group sustainability department at Board meetings.

Figure 3. Sustainability governance structures without a Board-level sustainability committee

For companies who do not have a Board-level sustainability structure, they are concerned that directors may get discouraged given the already frequent committee meetings, while others think there are already adequate channels such as the audit and risk management committee

⁶³ “groupthink” is a “psychological drive for consensus at any cost that suppresses dissent and appraisal of alternatives in cohesive decision making groups” (Janis 1972)

⁶⁴ Hong Kong is the first jurisdiction in the World which mandates the disclosure of board diversity policy for issuers and IPO applicants since January 2019. For those that have single-gendered Boards, further explanations are required upon listing to address gender issues.

as well as regular updates from sustainability department to communicate with the Board of directors on sustainability and climate-related matter. Some also expressed concerns that it would become a box-ticking exercise if a sustainability committee is established without buy-in from the directors themselves. The overlapping of materials and issues discussed may dispirit directors to further engage in the discussion.

Whereas at the operational level, majority of the listed companies have sustainability committees, working groups, task forces and forums are often present to communicate and implement climate-related initiatives. They may be established within the company, individual property, operations or subsidiary. Here, reporting by executives or operational committees also play an important role in framing the business case for capacity building and strategic planning. Two companies have appointed sustainability or environmental personnel at each business unit/project to facilitate relevant communications. Despite all companies have at least one operational structure related to the environment, most of them focuses on climate mitigation and environmental performance of the company alone. Only two companies have established working groups related to climate resilience. While one of them is an ad hoc structure to facilitate a corporate climate resilience study, the other is responsible for the formulation of climate change policy. Companies interviewed also agreed that it is important to establish strong and regular communication between staff at different levels to ensure aligned targets and expectations of climate and sustainability-related issues.

Other than Board composition, roles and responsibilities of other stakeholders as well as their culture also determine their climate accountability. For instance, company secretary and general counsel, legal advisors and senior management staff who regularly report to the Board play an important role in raising corporate awareness and influencing business strategies to address climate-related issues.

CLP incorporates sustainability into the corporate agenda

As one of the largest investor-owned power businesses in Asia Pacific that strives to create long-term value for its stakeholders, CLP Holdings Limited (CLP) has developed a comprehensive governance framework to ensure that sustainability issues relevant to its business are incorporated into the corporate agenda.

The CLP Board has overall responsibility for the company’s ESG strategy and reporting, while the governance of sustainability is integrated into the corporate governance structure throughout the Group – from Board-level committees to management-level Group functions and business units.



Figure 4. CLP Sustainability Governance Structure

As Board-level committees, the Sustainability Committee has a primary role in overseeing the management of the Group’s sustainability issues while the Audit & Risk Committee retains oversight and responsibility for material risks, as well as ensures the assurance of sustainability data is appropriate. The Sustainability Committee is also supported by the Sustainability Executive Committee, which steers the sustainability strategy of the Group and approves relevant deliverables.

In 2020, the CLP Board and the Sustainability Committee placed much focus in considering the longer-term issues which could shape CLP, including innovation, digitalisation, and the impacts of climate change on the power sector. On climate action, Committee members had in-depth discussions over the impact of climate policy and potential technological developments on the directional approach of CLP’s Climate Vision 2050, the company’s long-term decarbonisation plan. They also kept abreast of the climate policy landscape by gaining insights from experts and management briefings.

The Sustainability Executive Committee, meanwhile, held deep dive sessions to support the review of CLP’s Climate Vision 2050. This is in line with the company’s commitment to strengthen its decarbonisation targets at least every five years. Focus was also given to CLP’s reporting approach in support of the recommendations of the Task Force on Climate-related Financial Disclosures, the development of climate scenarios for further analysis, and the enhancement of CLP’s ESG data management for disclosure.

Board culture

Board culture is a critical drive to execute corporate goals and aspirations through similar values and beliefs within the Board. According to an article in the Harvard Business Review, culture shapes corporate norm and behaviour.⁶⁵ The main objective of having a good Board culture is to minimise chances of “groupthink”. In the context of climate change, it is to ensure a balanced interests and knowledge on the subject matter is being discussed and addressed fairly. Good Board structure, therefore, should try to introduce Board diversity, including gender, expertise and profession.⁶⁶ The alignment of individual interests sometimes forms an “in-group” in which Board members have shared mentality on climate-related issues. This promotes Board discussions to embed the subject matter in the corporate strategic planning and development. It is observed that in some companies, Board directors would engage with senior management and operational staff proactively on different sustainability issues. One company also shared that their Board directors bring up current affairs to the Board meeting, including topics related to climate change.

To make the right decisions on climate-related issues, it is recommended that the Board should build up capacity in climate change through trainings or seek external advice provided by experts or consultancies. 75% of the interviewed companies have tried doing so. Most of them built up the Board’s capacity with trainings through in-person briefing sessions, circulation of Board papers, and participation in sustainability and climate-related events. Climate-related training topics include global trends on climate change, climate risks, changing expectations on climate risk management and climate resilience, local regulatory changes and Board’s responsibility on the subject matter.

3.2 Risk Management

In his speech dated back in 2015, then Governor of the Bank of England Mark Carney referred climate change as the “Tragedy of the Horizon”.⁶⁷ He claimed that resolution to this tragedy requires thinking beyond the conventional business and political cycles, including disclosure of risks and opportunities related to climate change. In the following year, TCFD was established, aiming to facilitate state and non-state actors to disclose climate-related risks through industry-led collaborations. Since then, there are growing interests and expectations on climate risk assessments. Followed by the TCFD recommendations released in 2017, companies around the world have started to assess and disclose their climate-related financial risks. Subsequently, in 2018, the World Business Council for Sustainable Development (WBCSD) and The Committee of Sponsoring Organizations of the Treadway Commission (COSO) published a guideline on incorporating ESG risks to Enterprise Risk Management (ERM).⁶⁸ The guideline recommended a five-part framework for effective ERM:

⁶⁵ https://www.spencerstuart.com/-/media/2020/may/hbr_leaders_guide_corporate_culture_updated.pdf

⁶⁶ <http://csj.hkics.org.hk/site/2021/06/23/organisational-culture-and-purpose/>

⁶⁷ <https://www.bis.org/review/r151009a.pdf>

⁶⁸ <https://www.coso.org/Documents/COSO-WBCSD-ESGERM-Guidance-Full.pdf>



Figure 5. Incorporating ESG and climate-related considerations to enterprise risk management (Source: COSO/WBCSD)

Material risk and opportunity assessment

In terms of governance, the risk & audit committee of company Boards have been responsible for overseeing risk management strategies, and subsequently the risk management department. Climate-related risks have not been emphasised until recently. Strong coordination between Board-level sustainability committee and the risk & audit committees have assisted company Boards to incorporate climate risks and opportunities to their ERM.⁶⁹⁷⁰

As a requirement for ESG reporting, all interviewed companies have conducted materiality assessments to identify and determine material ESG issues and their associated risks. Two-third of them regard climate change as a very material topic or key sustainability issue, in which around one-third specifically pointed out climate change adaptation or resilience to be material. Although climate change is generally seen as material, they are usually not regarded as high-level risks. Only one company identifies climate change as a principal risk. For the rest of the group, 13% of the companies see emission as a material topic without identifying climate change and/or resilience as material, and another 13% convey that climate change is not the main focus of the company. As discussed in the previous section, absence of a universal understanding and categorisation of these issues add difficulty for companies to benchmark their performances.

Whereas materiality assessment is the first step to identify and prioritise climate-related issues, the assessment alone is an insufficient indicator of corporate capacity in dealing with these issues or building resilience. At top level, findings from climate risk and opportunity assessments needs to be translated and embedded in Board discussions to cultivate a culture

⁶⁹ <https://www.pwc.com/us/en/services/governance-insights-center/blog/boards-role-climate-risk.html>

⁷⁰

[https://www.hkcg.org.hk/files/publication/2459/KPMG%20and%20HKICS%20Enterprise%20Risk%20Management%20\(ERM\)%20Survey%20Report.pdf](https://www.hkcg.org.hk/files/publication/2459/KPMG%20and%20HKICS%20Enterprise%20Risk%20Management%20(ERM)%20Survey%20Report.pdf)

that exhibits climate-conscious behaviours and decisions.⁷¹ Among others, two common approaches are observed when companies draw the relationship between climate change and the associated risks: (1) to consider climate change itself a risk; or (2) to consider climate change as a contributing factor to other risks experienced by the company. Regardless, climate change as a risk can be further broken down into practical terms, such as emission reduction and energy efficiency; however, these terms may limit corporate understanding on what climate change means to them which otherwise focus only on mitigation. Additionally, given climate resilience is still an emerging concept in Hong Kong, there is a chance that climate risk discussions will only cover mitigation. This will be explained further in the next section.

Climate Risk Assessments and Scenario Analysis

The critical step of climate risk assessment after weighing the materiality metrics is the analysis based on the risks identified. Depending on the types of risks assessed, different methodologies may be used. All interviewed companies have conducted or are conducting qualitative or quantitative climate risk assessments. While most assessments cover both physical and transition risks, a number of companies did not give equal weight to both types of risk and focused mainly on physical risks. 13% conducted a group-wide assessment and the rest have conducted both group and asset level climate risk assessment. Some companies have also conducted assessments concerning individual physical risks like sea level rise and flooding. According to our interviewees, one of the biggest hurdles to overcome is developing an appropriate methodology to conduct risk assessments. As this is still an emerging practice for corporates in Hong Kong, it is sometimes difficult for companies to decide on the most suitable approach.

Amongst commonly adopted methodologies, scenario analysis⁷² is by far the most popular approach to conduct climate risk assessments. It is also regarded as the basis for companies to formulate an effective strategy that takes climate change into account. Two companies interviewed have specifically conducted physical risk scenario analyses while others have employed two to four scenarios for both physical and transition risks. It is also common for companies to employ different scenarios for the physical and transition risk assessments respectively. Companies tend to examine less scenarios for transition risks, mostly due to lack of longer-term data and projections.

In terms of scenarios referenced, majority of the scenario studies adopted the IPCC Representative Concentration Pathways (RCP) and the International Energy Agency (IEA)'s scenarios. For instance, RCP 2.6, 4.5, 6 and 8.5, IEA's STEPS (Stated Policies Scenario), SDS (Sustainable Development Scenario), CPS (Current Policies Scenario) and the Potsdam Institute for Climate Impact Research (PIK)'s REMIND Model (Regional Model of Investments and Development) are commonly used for transition risks. Whereas for physical risks, RCP 4.5 and 8.5, and IEA SDS are the most referenced. The IPCC's Stated Socioeconomic Pathways (SSPs) are sometimes considered to evaluate social risks. As for timeframes, four types of time frames are typically reviewed by corporates, namely near term (around 5 years/2025), short (around 10 years/2030), medium (around 30 to 50 years/2050-70), and long term (around 70 to 80

⁷¹ <https://www.coso.org/Documents/COSO-WBCSD-ESGERM-Guidance-Full.pdf>

⁷² "Scenario analysis" is a commonly adopted risk assessment approach. According to the Institutional Investor Group on Climate Change (IIGCC), scenario analysis is not a prediction of future, but rather description of the plausible states of the world. It may be done qualitatively, quantitatively, or both. The term scenario analysis is sometimes used alongside with "stress testing" or "sensitivity analysis". (reference: <https://www.iigcc.org/download/navigating-climate-scenario-analysis-a-guide-for-institutional-investors/?wpdmdl=1837&refresh=608fa6a81a0d71620027048>)

years/2090-2100). Corporates typically examine two to four-time horizons and the short- and long-term timeframes are used most frequently.

Regardless of the methodologies chosen, our interviewees reflected that scenario analysis tend to be time- and resource- intensive, especially on the amount and accuracy of data required. At present, despite heavy emphasis from the TCFD recommendations, there is no internationally recognised methodologies companies can follow on the depth and level of detail the analysis should be. Therefore, industry leaders have to explore and experiment with various approaches, and others who have just started the journey tend to follow their industry peers. Similarly, it is impractical to benchmark individual company's performances due to differences in methodologies, scenarios and baseline data used.⁷³

Out of the 18 listed companies interviewed, 11 of them indicated their compliance with the TCFD recommendations and disclosed their climate-related financial risks. Based on our observation, four common references were used to define and categorise metrics and targets, namely: (1) a combination of the key performance indicators (KPIs) of the *HKEx ESG Reporting Guide*⁷⁴ and Global Reporting Initiative (GRI) standards; (2) UN Sustainable Development Goals; (3) WBCSD TCFD Electric Utilities Preparer Forum⁷⁵; and (4) self-categorisation.

Pain point 2: Lack of internal/external knowledge and expertise

Approaches to enhance climate resilience is still in its infancy in Hong Kong with limited universal standards or practices for assessment and analysis. It is a resource- and time-intensive process to identify suitable consultants, assessment methodologies and disclosure frameworks. This is mainly because climate resilience consultants are not as established and recognised in Hong Kong as other advisory services - such as ESG reporting. It is therefore difficult to compare and assess the quality of consultants. Our interviewees reflected that multiple consultants are often needed to perform different types of climate-related assessments, which can be quite costly.

Apart from finding suitable expertise, it should be noted that typical climate resilience studies tend to be very scientific as they are often based on climate modelling results, which can be difficult for the laymen to comprehend the findings and draw relevance in the business context. For instance, the quantitative output and findings in climate resilience studies also make it less straightforward to draw practical implications for companies. Climate modelling and scenario analysis which rely on quantitative data can have relatively lower external validity⁷⁶ than using qualitative approaches. In other words, uncertainties and potential spill over effects outside of the defined conditions may be neglected. It is therefore difficult for companies to generalise the analysis findings to their business operations, as well as to benchmark themselves with industry peers.

Regarding data availability for scenario analysis, companies have explicitly mentioned the discrepancy of information availability across Government departments. Although weather and climate data are readily available from the Hong Kong Observatory, some companies expressed

⁷³ The United Nations Principles for Responsible Investment has summarised a list of useful information for companies to conduct climate scenario analysis
<https://www.unpri.org/climate-change/climate-scenario-analysis/3606.article>

⁷⁴ https://en-rules.hkex.com.hk/sites/default/files/net_file_store/HKEX4476_3841_VER20.pdf

⁷⁵ https://docs.wbcsd.org/2019/07/WBCSD_TCFD_Electric_Uilities_Preparer_Forum.pdf

⁷⁶ External validity is the validity of applying the conclusions of a scientific study outside the context of that study; whether the study can be generalised to and across other conditions.

that the data are still insufficient for companies to understand public policy updates or conduct a comprehensive climate risk assessment. For instance, companies vulnerable to physical risks such as storm surges, flooding and sea level rise tend to find it difficult to access relevant data and projections at district or regional levels, as those are owned by and restricted within Government departments. Even specialised climate consultants will have to develop their own scenarios and analyses.

Pain point 3: Lack of data and information

The quality and accuracy of climate risk and opportunity assessments are highly dependent on the availability and precision of data; therefore, updated information from Government departments is crucial for conducting climate resilience studies.⁷⁷ Overseas examples such as Australia have shown the importance of cross-departmental open data platforms in assisting private companies to measure and disclose relevant risks. Other information such as where and how Hong Kong will be affected by climate risks as well as the Government’s climate resilience measures are also critical for transition risk assessment and decision-making processes.

Case Study 🔍

Climate Resilience Study of Airport Authority Hong Kong

The airports sector is placing increasing focus on resilience and adaptation to a ‘changing climate’. Many airports are vulnerable to various climate hazards, including extreme weather and climate-related events, which have the potential to cause flight disruptions and cancellations, seriously impacting airport operations.

Recognising the need for action and the potential impact of climate change to existing and new infrastructure as well as operations, Airport Authority Hong Kong (AAHK) has undertaken studies over the years to review its climate readiness, assess infrastructure and implement adaptation planning.

AAHK’s most recent Climate Resilience Study commenced in 2020 and has followed a very comprehensive process (shown in Figure 5), ensuring key outputs are aligned with the TCFD Recommendations. The study was overseen by an interdisciplinary working group and steering committee with senior representation.

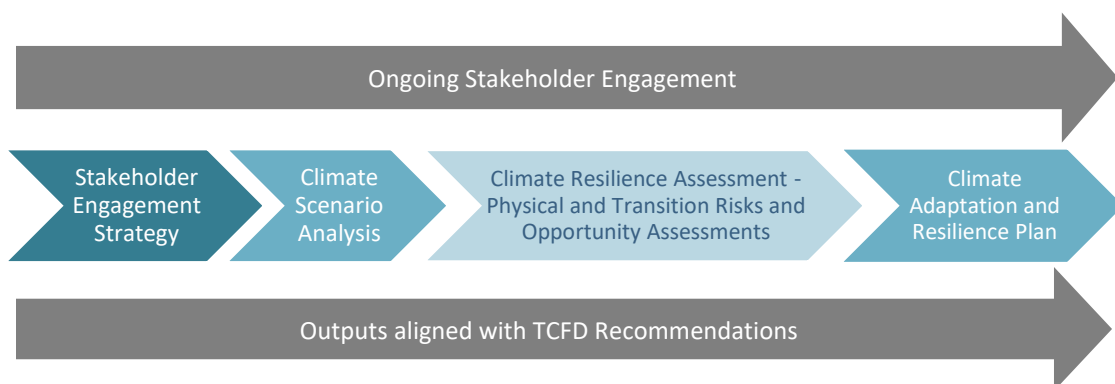


Figure 6. Climate Resilience Study high-level

⁷⁷ <https://www.wbcsd.org/contentwbc/download/2548/31131>

Key considerations at each stage of the study are outlined as follows:

1. **Stakeholder Engagement Strategy** – a core aspect AAHK’s approach was to ensure various stakeholders were engaged throughout the process to build awareness, foster collaboration and gain buy-in of adaptation actions.
2. **Climate Scenario Analysis** – included careful consideration of the scenarios that represented the full range of potential climate change impacts for physical and transition risks. The study reviewed various greenhouse gas scenarios (IPCC Representative Concentration Pathway scenarios), time horizons, climate hazards affecting infrastructure and operations and associated risk tolerances. An understanding of the current regulatory environment, a benchmark review of other global airport and local practices as well as a review of Government guidelines were also key inputs to this process.
3. **Physical Risk Assessment** – included an asset prioritisation process to identify critical and vulnerable assets with respect to key climate hazards at the airport i.e. flooding, typhoons and sea level rise. Following an initial screening, a more detailed assessment of risks and opportunities for critical assets under AAHK’s control was conducted. Significant input was sought from technical and operational teams.
4. **Transition Risk Assessment** – a number of risks and opportunities were reviewed in relation to market and technology, policy and legal and reputational drivers in line with the selected scenarios.
5. **Climate Adaptation and Resilience Plan** – adaptation actions were developed through interdisciplinary team workshops and will be owned by various departments within AAHK as appropriate.

3.3 Strategy

Strategy goes hand-in-hand with risk management. TCFD’s recommendations suggested disclosing a description and explanation of the impacts of the identified climate-related risks to company’s business strategy and financial planning. A good climate strategy, as recommended by the WEF climate governance guidance, integrates climate considerations to every aspect of the business, which may be realised in the form of the integration of climate risks into ERM systems, or the involvement of multiple business units into planning and development processes. Here, company Boards are playing a major role to incorporate findings of climate risk and opportunity assessments as prioritised areas in strategic planning. The key is to align with companies’ risk appetite and materiality.

Strategic integration

Integrating climate change into business strategy and development can be done in various ways depending on corporate profiles and operations. Most interviewed companies incorporate climate risks into their corporate risk matrices⁷⁸ As mentioned previously, companies tend to categorise climate change and the associated risks differently. Some focus on physical (e.g.

⁷⁸ "Corporate risk matrix" is a set of parameters or indicators which reflects corporate’s focal areas or concerns when conducting Group/Asset-level risk assessment. This is independent of the materiality matrix used for materiality assessments, and subsequently climate risk assessment and/or ESG reporting.

extreme weather events) and/or transition risk (e.g. policy changes) under the umbrella of climate change (Figure 7a); others consider climate change as a contributing factor to other types of risk (Figure 7b). For the former, chronic risks and incremental changes over time may be reflected when climate change is explored comprehensively as an individual risk. Whereas for the latter, incorporating climate change into other types of risks enables companies to recognise its importance to business operations, and prevents companies from overlooking the impact of climate change along their business lifecycles.

Regardless of the approach companies choose, joint effort between business units is crucial for implementation. Although the sustainability team is responsible for coordinating and conducting the risk assessment, and the incorporation of climate risks into corporate risk matrix, the strategic integration of climate risks should be a cross-departmental exercise, given the range of operations and assets involved in the process. To facilitate collaboration, companies stressed the importance for individual departments to accept their share of responsibility and take ownership of the issue. One company has formulated a climate resilience study working group to engage relevant staff in every stage of the study, from consultant selection and tendering to risk identification and assessment. This approach raises the corresponding business units' awareness on climate resilience, which in turn facilitates the resource allocation and formulation of climate resilience plans.

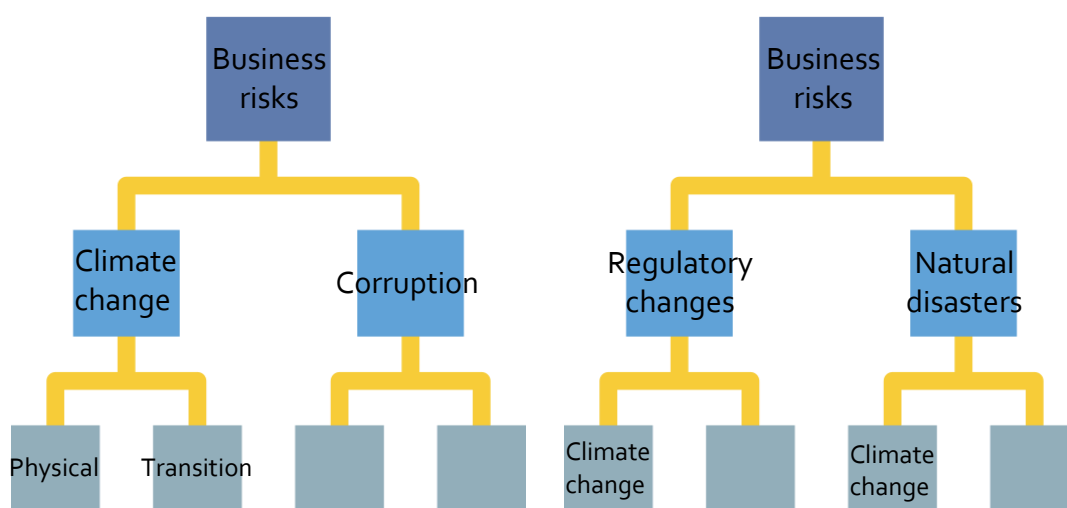


Figure 7a. Climate change is as an individual business risk

Figure 7b. Climate change as a contributing factor to other types of business risks

Incentivisation

So far, this report has illustrated how climate resilience can be built within a company through regulatory compliance, cultural shifts, advocacy and coordination between business units. Another powerful tool is incentivisation. According to the WEF⁷⁹, compensations and incentive programmes are highly effective to catalyse climate resilience measures and actions within a corporate. A recent survey conducted by Willis Towers Watson⁸⁰ in 2020 suggested that 78% company Boards are planning to revise their executive incentive plans with consideration of ESG and climate-related issues in the next three years; over 40% plan to introduce ESG

⁷⁹ <https://www.weforum.org/agenda/2021/01/how-climate-change-can-be-addressed-through-executive-compensation/>

⁸⁰ <https://www.willistowerswatson.com/en-US/News/2020/12/4-in-5-companies-planning-to-change-esg-measures-in-executive-pay-plans-over-next-3-years-wtw-survey>

measures to their incentive plans.

Throughout the interviews, majority of the companies have reflected that “climate change” has gradually become a KPI in performance reviews of executive directors and senior management.⁸¹ One company has explicitly expressed that climate change is now tied to their remuneration.

3.4 Disclosure & Engagement

Communication is another critical factor in the timely and effective delivery of climate resilience measure. In the context of governance structure, risk management and strategic planning, a top-down approach driven by the Board and senior management is usually adopted to respond to regulatory changes and changing investors' expectations. However, companies have also expressed the importance of bottom-up engagement and communication, for instance, raising climate and environmental awareness to operational and front-line staff, and communicating with civil society to build and keep the social license to operate. Another aspect of communication is the effective disclosure with transparent and consistent information.

Reporting and disclosure

At the Board level, directors are held accountable for the information reported and disclosed by companies. Best practices suggested by the WEF include reporting on the company's industry and public policy engagement on climate change. In Hong Kong, listed companies are bound by the HKEx ESG Reporting Guide, and financial institutions will soon be required to report on TCFD recommendations for financial disclosure no later than 2025. This sets the scene for businesses to disclose their environmental or sustainability-related financial performances. Other reporting frameworks such as the CDP questionnaires, Hang Seng Corporate Sustainability Index Series⁸² and GRI standards are also widely adopted by local and multinational corporates to meet the diversified interests of investors, and to benchmark with their industry peers. However, these reporting and rating standards tend to put little emphasis on climate resilience, which is often used interchangeably by sustainability practitioners when referring to the broader topic of sustainability.

All interviewed companies have been reporting their ESG performances according to at least one of the above-mentioned standards or ratings, and 63% have disclosed their relevant climate risks and resilience measures. These measures are then incorporated into their business continuation plans and/or supply chain analyses. In terms of disclosure framework, 50% of companies interviewed dedicated a separate section in their annual sustainability report to climate-related risk reporting, based on the TCFD recommendations. Some have also been reporting findings from their climate risk assessments even before TCFD recommendations came into play. However, companies expressed that complying with multiple sustainability reporting standards would neither affect the assessment processes nor induce a change of mindset.⁸³ Taking into account the growing maturity of sustainability and ESG reporting, companies indicated the need for harmonisation of standards to ensure the comprehensiveness, comparability and credibility of information disclosed.⁸⁴ This could also enable benchmarking among larger companies in the same industry, when they are assessed

⁸¹ <http://csj.hkics.org.hk/site/2021/06/23/fiduciary-duties-esg-and-the-risk-of-director-negligence/>

⁸² <https://www.hsi.com.hk/eng/indexes/all-indexes/corporatesustainability>

⁸³ <https://aplusmag.goodbarber.app/home-order/c/0/i/52622305/so-you-want-do-tcf>

⁸⁴ <https://ksapa.org/non-financial-reporting-harmonization-is-underway/>

by specific ESG or climate-related indicators under a common metric.⁸⁵ For others, the harmonisation of reporting standards simplifies the reporting process, facilitates them to embark on their climate resilience journeys, and helps them better understand industrial practices. Overseas cases have shown collaborative effort in harmonising sustainability reporting standards. For instance, in September 2020, CDP, the Climate Disclosure Standards Board (CDSB), GRI, the Sustainability Accounts Standards Board (SASB) and the International Integrated Reporting Council (IIRC) released a joint statement to work together to improve corporate sustainability reporting.⁸⁶ An alternative approach is to introduce sector-specific reporting standards that address their respective interests. For example, the *Guidance on Climate-related Financial Disclosures 2.0* released by the TCFD Consortium in Japan⁸⁷ have provided recommended disclosures for individual sectors and explained how they can build climate resilience accordingly. Locally, SFC and the HKEx will collaborate with the Financial Reporting Council and the Hong Kong Institute of Certified Public Accountants (HKICPA) to work on a roadmap on TCFD-aligned reporting, to evaluate and potentially adopt the new standard and prepare for the transition to mandatory disclosure by the financial sector in 2025.⁸⁸

Pain point 4: Imbalanced disclosures and engagement

In the context of reporting and disclosure, there has been an overwhelming amount of sustainability reporting standards and guidelines in the market over the past few years. However, with similar approaches and often overlapping disclosure requirements, compliance to multiple standards has little effect on changing companies' approaches to manage climate change.

Besides, majority of the listed companies' disclosures are based on the minimum requirements of these reporting standards. Referencing to the HKEx ESG Reporting Guide and GRI standards, there is an imbalance between the "E", "S" and "G" aspects of the assessment. For instance, core disclosure for GRI on governance covers only the governance structure (GRI Disclosure 102-18) and the corresponding Board committees for economic, environmental and social-related decision making. Other information such as Board oversight and responsibility (102-20), stakeholders involved for internal and external consultations (102-21), evaluation of Board performance on sustainability-related issues (102-28), Board communication with other levels of management and stakeholders (102-33), and remuneration policies in response to economic, social and environmental-related performances (102-35) are not required. This generates less market incentives for companies to communicate their climate resilience strategies nor redirect their focus to the governance aspects of ESG.

When companies complete climate risk assessments, it is important for them to communicate findings to stakeholders involved, and translate visions into practical and technical implications. This is to bridge the value-action gap between Board level decisions and daily operations. Our interviewees have expressed the immense difficulty to raise awareness among internal staff and drive relevant behavioural changes. With growing expectations from investors, regulators and the civil society, companies also find it hard to keep up with the emerging trends.

⁸⁵ <https://www.brunswickgroup.com/esg-disclosure-i18329/>

⁸⁶ <https://29kjwb3armds2g3gi4lq2sx1-wpengine.netdna-ssl.com/wp-content/uploads/Statement-of-Intent-to-Work-Together-Towards-Comprehensive-Corporate-Reporting.pdf>

⁸⁷ https://tcfcd-consortium.jp/pdf/en/news/20081201/TCFD_Guidance_2_0-e.pdf

⁸⁸ <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2021/07/20210715-4/>

Exchange

Realising climate resilience through corporate governance requires strong internal and external communications. An example of internal communication is how strategic directions initiated by the Board are translated to business plans and projected at the senior management level, and subsequently to action items and work practices at operational levels. One of the most common way to improve communication is through education and training, to raise staff awareness regarding climate change and how it impacts their work. This is especially important for staff working in non-climate-related business units. As one of the interviewees noted, achieving climate resilience is important, but the process leading to it is more important and critical to long-term success.

Case Study

Advocating Sustainability and Climate Resilience – HK Electric’s Case

The Hongkong Electric Co. Ltd. (HK Electric), one of the two electricity utilities in Hong Kong, has been powering the city’s growth for more than 130 years. The Company has a well-defined sustainability governance structure outlining the responsibilities of all parties, from the Board to management and individual business units. This is coupled with a formal sustainability framework to help translate company values and commitments into measurable actions and progress across the organisation.

HK Electric is committed to operating its business responsibly and transparently while supporting sustainable development and meeting the long-term energy needs of the community. The Company accomplishes this by integrating sustainability considerations into its operations and engaging with its stakeholders to create shared value.

HK Electric recognises the importance of participation and support of its stakeholders, both within and outside the organisation, throughout its sustainability and decarbonisation journey. Besides showcasing its approach to sustainability, performance, plans and targets through its website, [Sustainability Reports](#) and responses to CDP’s climate change survey, the Company also engages its stakeholders through various initiatives to raise awareness and get them involved.

Particularly for employees, other than providing regular training on various sustainability topics, HK Electric also engages its employees through specific activities such as annual campaigns in support of the World Environment Day and regular dialogue sessions between top management and employees. Recently, the Company has arranged an internal theme talk and sought individual business units’ views on the “Report on Public Engagement on Long-term Decarbonisation Strategy” published by the Council for Sustainable Development.

In May 2020, HK Electric rolled out an internal education campaign to enhance employees’ awareness of the Company’s sustainability commitments and performance. Key features of the campaign include a pre-campaign survey to gauge employees’ understanding of sustainability, a mandatory training with over 1,800 staff participating, education videos, article sharing, “Sustainability Quote of the Week”, theme talks, workshops, quizzes and a Sustainability Corner on the Intranet portal which provides a common platform for all colleagues to share best practices in environmental protection, young talents development, health & safety, promoting eco-heritage, customer services, stakeholder engagement, etc.

Case Study



HK Electric's Managing Director Wan Chi-tin kicks off an 18-month internal education campaign on sustainability through dialogue with the campaign spokesperson Green Kid.



HK Electric's in-house campaign to support the World Environment Day 2021 features an urban organic planting course for staff in echoing the theme of Eco-system Restoration for United Nation World Environmental Day 2021.

As for external communications, our interviewees shared that there is often a gap between the expectation from sustainability practitioners and actual policies delivered by the Government and other policymakers. As suggested by the WEF climate governance guidance, the Board should be regularly involved and engaged in climate-related discussions and public policymaking. They should organise regular stakeholder engagement exercises with shareholders, NGOs, clients, academia and regulators, to ensure inclusiveness and transparency. This is a critical step for companies to take forward in order to seek the social license to operate⁸⁹ by striking a balance between corporate social responsibility, Government regulation and licensing of companies, reporting and Board director duties.⁹⁰

⁸⁹ "social license to operate" is the acceptance or approval level by local communities and stakeholders of organisations. <https://learningforsustainability.net/social-license/>

⁹⁰ <https://minerva-access.unimelb.edu.au/bitstream/handle/11343/233405/2019-Langford-Final%20Amended%20CSLJ.pdf?sequence=1&isAllowed=y>

4. Checklist on Effective Corporate Governance for Climate Resilience (for listed companies)

The realisation of effective corporate climate governance requires a forward-looking strategy to prepare for the everchanging climate conditions, policy requirements and investor expectations. Based on our research findings and observations, below is a recommended checklist for companies to measure their effectiveness on corporate governance. With reference to the WEF Climate Governance guidelines, this checklist contains suggestions for fundamental practices for companies that have just started the journey, and best practices for companies that would like to further enhance their climate resilience.

Governance

Principles:

- Be accountable to shareholders on climate-related risks and opportunities within the corporate
- Demonstrate leadership on climate resilience through diversified Board composition and expertise
- Maintain an effective Board structure and culture to allow timely discussion of climate-related issues and plans

Fundamental practices:

- The Board should oversee the formulation and implementation of climate-related (mitigation, adaptation, resilience) sustainability and risk management strategies
- Build capacity through internal and external expertise to ensure Board members are well informed of latest climate-related issues and trends
- Maintain close contact with different levels of management to ensure climate-related risks and opportunities are well communicated and informed
- Establish senior management-level committee(s) or working group(s) to develop, execute and monitor climate mitigation, adaptation and resilience plans
- Embed climate change and sustainability in company's culture and core values

Best practices:

- Establish Board-level committee(s) to oversee policies and strategies related to climate change and sustainability
- Appoint Board directors with climate and sustainability expertise and/or experiences
- Provide regular trainings and updates to Board directors on climate change and sustainability
- Disclose governance structure and directors' responsibilities related to climate change and sustainability; frequency and content of climate-related committee meetings

Risk Management

Principles:

- Demonstrate oversight on climate-related risk and opportunity assessments in short-, medium- and long-terms
- Allocate resources to draw internal and/or external expertise to conduct climate risk assessments
- Respond to and incorporate findings from risk assessments into climate strategies

Fundamental practices:

- Equip company Boards with sufficient awareness of climate and sustainability risks faced by the industry and its implications in business terms
- Identify and value the materiality of climate-related issues through assessments
- Integrate climate-related risks into corporate risk management and business continuity plans
- Disclose findings of climate risk assessments, including but not limited to scenarios used, identified risks and opportunities

Best practices:

- Disclose the frequency and methodologies used in materiality and climate risk assessments
- Adopt scenario analysis and TCFD recommendations in climate risk assessments
- Conduct climate-relevant supply chain analyses
- Formulate firm-wide strategy or vision on climate change and sustainability, and climate resilience action plans

Strategy

Principles:

- Integrate climate change into strategic planning and corporate decision-making processes
- Incentivise climate-related targets and actions to drive behavioural changes at Board, senior management and operational levels

Fundamental practices:

- Integrate climate risks to enterprise risk management (ERM)
- Involve multiple business units in corporate planning and development

Best practices:

- Tie remuneration and executive incentive programmes to climate-related

performances for senior management and Board directors

Disclosure & Engagement

Principles:

- Oversee the disclosure of climate-related risks, opportunities and strategic decisions to ensure transparency and consistency
- Enhance internal and external communications through engagement and reporting to inform stakeholders on climate-related risks and opportunities
- Engage internal staff through awareness-raising to translate climate-related strategies into daily practices

Fundamental practices:

- Align the disclosure of climate risks and opportunities with local (i.e. HKEx ESG Reporting Guide) and international (i.e. TCFD recommendations) standards
- Maintain regular dialogue on climate change with relevant stakeholders, on topics such as latest trends and suggestions to improve corporate climate governance, climate reporting and disclosure

Best practices:

- Reference disclosure framework of climate governance with voluntary standards, e.g. GRI 102-18-39.
- Encourage holistic top-down and bottom-up approaches to ensure climate-related strategies are aligned across different levels of staff
- Embrace inclusiveness and participation of civil society and other relevant stakeholders on climate change and relevant public policymaking

5. Recommendations

Good corporate governance for climate resilience requires joint effort from multiple stakeholders. They all have a role to play to implement, facilitate, promote, advocate, research and support good governance practices. The checklist on Effective Corporate Governance for Climate Resilience in the previous section provided suggestions for companies to improve their climate governance and build resilience. This section will consider the broader discussion of corporate governance, provide recommendations to address the emerging challenges and opportunities faced by companies in Hong Kong.

5.1 Public policy support on climate resilience and disclosure

- Develop a city-wide climate resilience strategy
- Provide open data for climate risk assessments
- Enable closer interdepartmental collaborations on climate change and resilience
- Implement incentive programs to encourage companies to consider climate resilience
- Provide guidance on TCFD-aligned reporting

Progress on building climate resilience is largely dependent on public policy and information availability. A study conducted by CDP, C40 Cities and AECOM in 2014 gathered responses from 207 cities worldwide and suggested the importance of cities' adaptation plan to business resilience, particularly in projecting physical and transition risks.⁹¹ The report summarised four best practices for city Governments to facilitate community-wide business resilience, namely: (1) consider business development in city planning system; (2) provide guidance and information for companies to assess their relevant risks; (3) provide incentives to encourage business actions on climate resilience; and (4) invest on infrastructure and projects related to climate resilience.⁹²

A city-wide climate resilience strategy and roadmap that specify short-, medium-, and long-term public policy goals are crucial to study potential climate-related risks ahead of time. These goals should provide businesses and researchers an overview on the state of affairs of infrastructure and Government's future investment to enhance climate resilience. Transparency and availability of these information will enable a more accurate accounting of climate risks and facilitate regulatory compliance.

Apart from open data and information, inter-departmental collaboration within the Government is also critical to optimise internal expertise and resource allocation. The existing inter-departmental committee on Climate Change formed by the Environment Bureau in 2007⁹³ and the Hong Kong-Guangdong Joint Liaison Group on Combating Climate Change should put more emphasis on climate resilience, as well as deliver joint-departmental initiatives to incentivise climate actions across sectors. It is also suggested that a Chief Resilience Officer with interdisciplinary knowledge should be appointed to oversee the communication and

⁹¹ <https://www.c40.org/researches/protecting-our-capital>

⁹² <https://documents1.worldbank.org/curated/en/519821547481031999/The-World-Bank-Groups-Action-Plan-on-Climate-Change-Adaptation-and-Resilience-Managing-Risks-for-a-More-Resilient-Future.pdf>

⁹³ https://www.epd.gov.hk/epd/english/news_events/legco/files/EA_Paper_Climate_Change_eng.pdf

execute partnerships actions.

Recognising Government actions on corporate governance, regulatory control should complement sector-specific guidelines and suggestions, for example, on TCFD-aligned reporting and awareness raising for the Board. This is to ensure that climate resilience practices and disclosures are not just box-ticking practices, but rather continuous learning and collaborative processes across different levels of staff within a company.

5.2 Capacity building of company Boards

- Support awareness raising activities and trainings for Board directors on climate change and sustainability
- Establish knowledge-sharing networks among industry peers and Board directors

With increasingly stringent regulations on climate-related reporting and changing investor expectations, companies in Hong Kong have gradually integrated climate change as part of their business planning and development. Our research showed that there is a need to redirect the emphasis to governance with a climate resilience mindset. While there is yet a mandated requirement to provide trainings for Board directors, regular updates on the subject matter will be helpful for companies to align their understanding, particularly on the differences between climate mitigation, adaptation and resilience, as well as the longer-term impacts of climate change.⁹⁴ Additionally, trainings provided by legal professionals can also help inform Board directors on trends like climate-related fiduciary duties, considerations of climate-related liability and litigation risks.⁹⁵ We also recommend utilising the available e-learning materials and resources from institutes and professional bodies such as the HKEx⁹⁶ and the HKICS to inform Board directors' duties in climate change.

Aside from trainings for Board directors, the role of INED may also be optimised. The UK has demonstrated the benefits of forming a knowledge sharing platform for NEDs and INEDs on climate change. Founded at the University of Cambridge in 2019, Chapter Zero supports Board directors to lead climate-related discussions at Board meetings through regular workshops, sharing sessions and roundtable forums. Hong Kong should consider adopting a similar approach to draw Board interest and raise awareness on climate change and sustainability.⁹⁷

5.3 Professionalise ESG and Sustainability practitioners

- Provide continuous training on climate risk management and corporate governance
- Recognise climate resilience and risk assessment professionals

With increasing interest to conduct climate resilience studies and risk assessments, demand for relevant consultants have surged over the past years. While some may think such assessments can be easily performed by conventional sustainability consultants, our research suggests that climate resilience and corporate governance are highly sophisticated and technical topics, with the added difficulty in linking climate resilience with corporate governance practices without mature research-based guidelines and protocols. Therefore, the roles and responsibilities of these professionals are often seen as a black box. To ensure quality

⁹⁴ <https://www.greenbiz.com/article/5-steps-boards-can-take-be-esg-ready-2021>

⁹⁵ <https://hbr.org/2020/09/the-boards-role-in-sustainability>

⁹⁶ https://www.hkex.com.hk/Listing/Listed-Issuers/e-Learning?sc_lang=en

⁹⁷ <https://www.chapterzero.org.uk/about-us/>

and accountability, there is a need to continuously train and professionalise consultants for climate resilience studies. At present, the Global Association of Risk Professionals (GARP) offers the Sustainability and Climate Risk (SCR®) Certificate which trains practitioners on climate risk assessments and scenario analysis. A similar approach could be extended to climate resilience. As suggested by the WBCSD and COSO, skills, capabilities and knowledge between sustainability and risk management practitioners need to be transferred and shared to realise climate and ESG integration in risk management.⁹⁸ This will be a win-win situation for both companies and practitioners: companies can identify qualified and experienced professionals, while practitioners can consider this as part of their professional development, to keep up with industry trends and be equipped with relevant skillsets.

5.4 Policy research and advocacy

- Research on policy communication for climate change and sustainability
- Advocate the business community on corporate governance and climate resilience

The study of climate resilience requires certain level of scientific knowledge to understand its implications to business development and operations. As we expect the methodologies and analysis of climate risk and resilience studies to be more established in the future, it is important to note that the scientific approach is insufficient to provide solutions to all climate-related risks, threats and challenges. In practice, the combined approach of science and social science remain important to understand community expectations and street-level challenges. Climate modelling and other quantitative analyses should couple with qualitative studies to draw business implications in short-, medium- and long-term. As such, we recommend more research on climate change policy communication, to address the information gaps and uncertainties at the science-policy interface⁹⁹.

Apart from policy communication, interdisciplinary research on the integration of climate change to risk management and corporate governance is critical to educate and translate latest climate science findings into applicable practices for business operations and development. The “Partnership for Sustainability Leadership in Business” project led by the Centre for Civil Society and Governance of the University of Hong Kong is an example of co-learning and co-creating knowledge on corporate sustainability.¹⁰⁰ Through providing training courses, toolkits and case studies, Small-and-Medium Enterprises (SMEs) are expected to have better guidance as to how to kickstart their sustainability journey. Concepts such as corporate climate governance may be embedded into these programs to draw SMEs’ attention towards climate resilience and risk management. Observations and findings from the project also assist researchers to draw good policy communication practices to increase impacts.

Building on continuous research and stakeholder engagement, we also recognise the need to continuously advocate on the topic to the wider community. For instance, NGOs and community association may utilise their network and provide a knowledge sharing and exchange platforms to educate and share capacity building experiences related to climate resilience. Impacts will be scaled up if companies can find a common ground and deliver their recommendations to the Government, and SMEs in particular to raise awareness on climate resilience. Hands-on and user-friendly tools and guidelines will make climate risk assessments more accessible.

⁹⁸ <https://www.coso.org/Documents/COSO-WBCSD-ESGERM-Guidance-Full.pdf>

⁹⁹ https://ec.europa.eu/environment/integration/research/newsalert/pdf/17si_en.pdf

¹⁰⁰ <https://ccsg.hku.hk/pslb/about/the-project/>

6. Conclusion

Strong corporate governance is critical for companies to build climate resilience. With changing policy regulations and investor expectations, local and overseas examples have demonstrated the importance of integrating climate change into every aspect of a business. Our analysis showed that company Boards are more aware of climate mitigation than resilience. Limited proficiency on the subject matter hinders corporates to appreciate the long-term values in response to chronic impacts of climate change. Whereas TCFD recommendations have gradually become the industry best practice for climate risk assessments, the lack of data and expertise remain the biggest challenge for comprehensive analyses. Noting that climate resilience studies require technical knowledge on climate science, many ESG and sustainability practitioners may not be well equipped to perform such assessments.

In addition to Board awareness and resource availability, communicating climate resilience effectively also have significant impacts to improve corporate governance. This ensures that climate resilience measures are properly implemented, and performances are monitored throughout a corporate. While more efforts are needed to translate the findings of climate resilience studies, our analysis suggested that stakeholder engagement and public policy contributions related to climate change are proven ways to demonstrate corporate commitment and responsibility on the subject matter. Driven by top management, this is an effective way to show strong Board awareness and climate oversight.

Responding to the ongoing challenges faced by companies in Hong Kong, this report recommends more public policy support to incentivise corporate actions on climate resilience. We also recommend capacity building for company Boards to enable strong climate accountability and oversight. To further enhance competitiveness, we also suggest to professionalise climate resilience and risk assessment practitioners to facilitate more comprehensive and standardised reporting and analysis.

Effective corporate climate governance cannot be achieved overnight. As we look forward to this topic, further study needs to be done. For instance, more companies are improving their climate governance, it may be worthwhile to put forward more thorough case studies and suggest industry best practices. It will also be useful to evaluate the role of communication and how effective different communication strategies are in driving behavioural changes in various climate resilience measures, including the effect of Board culture and diversity. On the other hand, the concept of a just transition is also worth exploring. In the context of Hong Kong, it refers to the integration of humanitarian and equity factors to the discussion of climate change, and the considerations of unlisted companies or SMEs on sustainability reporting and climate change. Research on the relationships between corporate governance and social license to operate will be relevant as we expect these practices to extend beyond listed companies to unlisted companies and SMEs, which often have less motivation to start their climate resilience journey.

Glossary

AIGCC	Asia Investor Group on Climate Change
ASIC	Australian Securities and Investments Commission
BAU	Business-as-Usual
CEO	Chief Executive Officer
CGC	Corporate Governance Code
CISL	Cambridge Institute for Sustainability Leadership
COSO	The Committee of Sponsoring Organizations of the Treadway Commission
CPS	Current Policies Scenario
CSR	Corporate Social Responsibility
EDs	Executive Directors
ERM	Enterprise Risk Management
ESG	Environment, Social and Governance
GARP	Global Association of Risk Professionals
GRESB	Global Real Estate Sustainability Benchmark
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
HKEx	Hong Kong Stock Exchange
HKGFA	Hong Kong Green Finance Association
HKICPA	Hong Kong Institute of Certified Public Accountants
HKICS	Hong Kong Institute of Chartered Secretaries
IEA	International Energy Agency
IIRC	International Integrated Reporting Council
INEDs	Independent Non-Executive Directors
IPCC	Intergovernmental Panel on Climate Change
KPI	Key Performance Indicator
NEDs	Non-Executive Directors
OECD	Organisation of Economic Corporation and Development
PIK	Potsdam Institute for Climate Impact Research
RCP	Representative Concentration Pathway
REMIND	Regional Model of Investments and Development
REST	Retail Employees Superannuation Trust
ROI	Return of Investment
SASB	Sustainability Accounts Standards Board
SCR	Sustainability and Climate Risk
SDS	Sustainable Development Scenario
SFC	Securities and Futures Commission
SMEs	Small-and-Medium Enterprises
SSP	Stated Socioeconomic Pathways
STEPS	Stated Policies Scenario
TCFD	Taskforce for Climate-related Financial Disclosure
UK	United Kingdom
WBCSD	World Business Council for Sustainable Development
WEF	World Economic Forum
WMO	World Meteorological Organisation

Acknowledgements

This project is the work of Business Environment Council (BEC)'s Policy & Research team, supported by the BEC Climate Change Business Forum Advisory Group (CCBF AG). BEC would like to express our gratitude to the CCBF AG Steering Committee and Ordinary members, interviewees, workshop participants, and other contributors that have greatly assisted in the content and development of this research paper. BEC is grateful for the generous support of member companies, particularly the Steering Committee of BEC CCBF AG, who have provided financial support for this project.



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Business Environment Council Limited (“BEC”) is an independent, charitable membership organisation, established by the business sector in Hong Kong. Since its establishment in 1992, BEC has been at the forefront of promoting environmental excellence by advocating the uptake of clean technologies and practices which reduce waste, conserve resources, prevent pollution and improve corporate environmental and social responsibility. BEC offers sustainable solutions and professional services covering advisory, research, assessment, training and award programs for Government, business and the community, thus enabling environmental protection and contributing to the transition to a low carbon economy.

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