Institute Briefing

From Promise to Action:
Decoding Climate Disclosure

Foreword

Starting in 2016, business leaders had to contend with a new acronym: TCFD, the Task Force on Climate-related Financial Disclosures.

Faced with the realization that climate change represents a critical systemic risk to the global economic system, Mark Carney, then the Governor of the Bank of England, embarked on a mission to plug the glaring gap in market-relevant climate-related information. Put simply, if markets were to play a real part in addressing climate change, investors needed better data.

While nascent, early uptake of TCFD has been far-reaching. Because of, and to reinforce TCFD, new financial regulation has appeared in many capital markets. The regulation applies to those accessing capital like publicly listed companies, and to those deploying capital including banking, insurance, and asset management businesses.

Even while climate disclosure is becoming mainstream, investors are demanding more and better climate-related information from companies. To help the private sector move from promise to action on this aspect of transparency, this SustainAbility Institute by ERM report outlines how to approach and begin to undertake your organization's disclosure journey.

ERM helped write supporting guidance to the TCFD recommendations, and we know what it takes for companies to excel at climate disclosure. In this paper, we explain the current state of this field, detailing three stages companies must go through to develop high quality disclosures and explaining how to approach each.

While TCFD is not the only approach to climate-related financial disclosure, it is unquestionably one of the most influential, and it is almost without precedent in how it interlaces financial and environmental regulation. Put simply, this one matters.

As one major bank we interviewed put it: "TCFD is a means to an end. The terminology is new but we've recognized for decades we need to decarbonize society. Now is the time to act."

We hope this report will help you understand and address the challenges TCFD brings. We welcome your feedback so that we can continue to improve our own understanding of the best ways to address the urgent challenge climate change poses.

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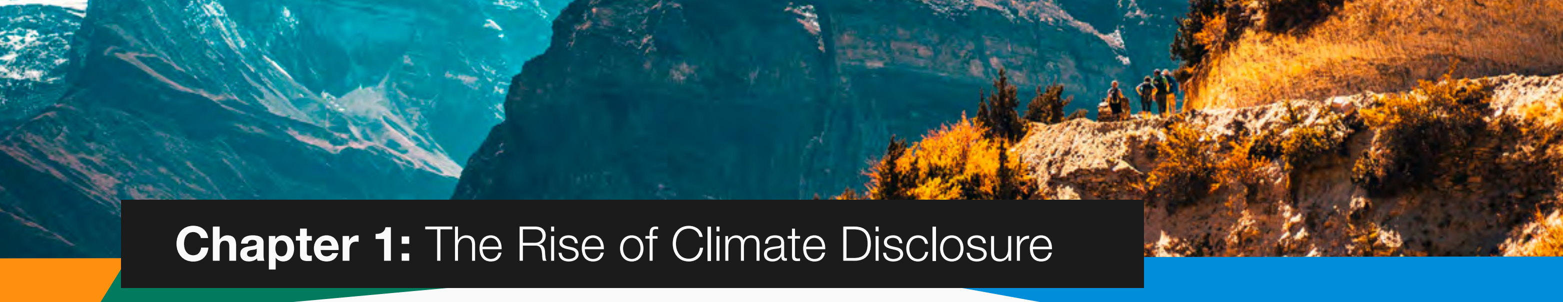


Chapter 1: The Rise of Climate Disclosure

Rising awareness

Awareness of climate-related risk has been growing for decades – at least since the Intergovernmental Panel on Climate Change (IPCC) issued its first report in 1990 – and has accelerated tremendously in recent years as its systemic nature came to be better understood.

Many stakeholders have helped highlight the urgency of the global climate challenge. The scientific community and civil society have been at the forefront of raising consciousness and pressing the need for action. Non-profit campaigns, the youth climate movement, the plight of climate migrants (estimated by the World Bank to include at least 143 million people by 2050[1]), and the rise in climate-fueled conflicts like those related to drought and famine in Syria and Yemen, have all served to boost recognition.

Voluntary frameworks, ratings, and standards like the Global Reporting Initiative (GRI) and the Carbon Disclosure Project (CDP) began to emerge about 20 years ago. The creation of the Sustainability Accounting Standards Board (SASB) in 2011, and the 2021 International Accounting Standards Board (IASB) announcement that it will publish Sustainability Reporting Standards, highlight the ongoing spread and growing sophistication of non-financial reporting.[2]

Business has helped define best practice for disclosing and managing sustainability performance and climate risk as well. From the few corporate sustainability reporting pioneers of the 1990s like Dupont, Ford, Shell, Sony, and Unilever, nearly 10,000 companies disclosed to CDP in 2020.[3] Similarly, just over 10,000 companies, including 73% of the 250 largest companies by revenue globally, now use GRI.[4]

The role of government

In parallel to civil society advocacy and the efforts of private enterprise, national governments collectively signaled their intention to address climate risk with the 2015 Paris Agreement, which commits them to a global framework for carbon reduction. Governmental ambition continues to increase. In advance of the COP26 conference in Glasgow this year, China committed to net zero emissions by 2060,[6] while Europe pledged to reach net zero by 2050, and many city and regional governments globally have made bold promises too.

While these commitments are welcome and will help mitigate climate change, risks to the global economy still abound.

Enter TCFD

A quest to differently and better understand the economic risk associated with climate change began post-financial crisis in 2009. At that time, the G20 countries created the Financial Stability Board (FSB) to assess financial system vulnerabilities and recommend ways to prevent future market crashes. Identifying climate as an area of key importance, the FSB established the Task Force on Climate-related Financial Disclosures (TCFD) six years later, just after governments signed the Paris Agreement. TCFD released initial climate-related financial disclosure recommendations for comment in 2016, finalizing them in 2017, as shown in Figure 1.

As of 2021, some 2,085 companies representing a market capitalization of well over $22.4 trillion are TCFD supporters,[7] and many of them have begun to implement its recommendations. As Mark Carney, ex-Governor of the Bank of England and a key TCFD architect, put it in 2020: "Demand for climate-related financial disclosures has skyrocketed and the supply is responding."[8]

While acknowledging and applauding this progress, there is still significant and urgent need for greater TCFD uptake and more sophisticated disclosures from companies already active. Regulators and investors recognize this and are pushing for it to happen.

Investors as catalyst

Investors are concerned about the risk to their portfolios posed by climate-related financial risk. They need tools to help them understand this exposure and compare existing and potential investments, especially given the pressure they face to explain such risks to their own stakeholders including pension funds, wealth managers, high-net-worth individuals, insurance companies, and regulators.

As a result, investor activity is spreading. Perhaps most famously, Larry Fink's 2021 letter to CEOs calls for more detailed information on portfolio company climate strategies.[9] Such focus from BlackRock, the largest global asset manager, cannot be ignored, but as or more significant is the sheer volume of investors worldwide expressing similar or even greater demands. For example, State Street has been calling on companies to disclose using TCFD since 2018 and engaging company boards regarding climate risk oversight.[10] Similarly, UBS Asset Management has an engagement program to press oil & gas and power companies to improve disclosure and performance in alignment with TCFD.[11]

Some investors are banding together to maximize their influence. Climate Action 100+, comprising some 500 investors with around $50 trillion in assets at the time of writing this report, engages companies to encourage them to "provide enhanced climate-related disclosures in line with TCFD."[12] The group asks companies to implement governance, actions, and TCFD disclosures that support net zero commitments in line with the Paris Agreement, stating that "…inaction by companies following engagement may result in investors taking further action."[13]

Other financial services firms have formed groups to amplify their voices too. The UN-convened Net Zero Asset Owner Alliance, which includes Allianz, Aviva, and CalPERS, has committed to align its members' investment portfolios to net zero by 2050.[14] Meanwhile, the London-based Institutional Investors Group on Climate Change (IIGCC) recently launched a set of tools to help investors achieve net zero portfolios and to guide company directors working to provide Paris-aligned disclosures.[15]

From voluntary to mandatory

Regulators recognize that financial markets are not getting all the information they need fast enough, and are moving to address this. As Allison Herren Lee, Acting Chair of the United States (US) Securities and Exchange Commission (SEC), put it on March 15, 2020:

Investors are demanding more and better information on climate and ESG, and that demand is not being met by the current voluntary framework…it's time to move from the question of "if" to the more difficult question of "how" we obtain disclosure on climate.[16]

In the same address, Lee announced the SEC is inviting public comment on climate disclosure to further inform its policymaking.[17] One of the consultation questions provides a clear sense of its direction of travel: "What is the best approach for requiring climate-related disclosures?"

While an SEC position on mandatory disclosures would be significant considering the number of financial institutions and listed companies comprising the US market, it is only the latest signal of burgeoning regulatory interest and action.

In September 2020, New Zealand became the first country to require mandatory climate disclosures from banks and companies meeting specific listing criteria.[18] In the United Kingdom (UK), financial institutions and the largest publicly traded companies will have to provide climate disclosures (or explain why they are not)[19] starting in 2021, with this obligation extending to all public companies in the UK by 2023.[20] Similarly, Hong Kong will insist that all companies in its jurisdiction disclose climate risk in line with TCFD by 2025.[21]

In the European Union (EU), updated guidelines applying to its non-financial reporting directive (NFRD),[22] make TCFD mandatory, and similar guidelines aimed at increasing the quality of climate reporting have been issued in jurisdictions such as Australia.[23]

Worldwide, more than 100 countries are considering when to make climate reporting a requirement both for companies and financial institutions like banks, insurance firms, and asset managers. Pressure on non-financial companies is twofold, as they are subject to regulation applying directly, and influenced by regulation on financial institutions now required to disclose the climate-related risk in their portfolios. Collectively, all the above creates additional demand for more and better-quality disclosures, a trend expected to increase, thus requiring the kind of corporate response outlined in the next chapter.

Figure 1: TCFD disclosure framework[24]

Overview of the Task Force on Climate-related Financial Disclosures (TCFD)

The TCFD was formed by the G20 Financial Stability Board or FSB, which is comprised of a group of the world's central banks. TCFD is led by ex-Bank of England Governor, Mark Carney. Its objective is to formalize climate disclosures into a common format allowing transparency and comparability. The framework breaks down climate disclosures into 11 key recommendations organized in four pillars: Governance, Risk Management, Strategy, and Metrics and Targets. ERM was retained as a technical adviser to the TCFD and authored the Technical Supplement on Scenario Analysis, the guidance paper setting out how to respond to the TCFD recommendations.

Governance

The organization's governance around climate-related risks and opportunities.

- **A** Board oversight of climate-related risks and opportunities (CRRO)
- **B** Management's role in assessing and managing CRRO

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

- **A** Company-specific CRRO identified over the short, medium, and long-term
- **B** Impact of CRRO on the company's businesses, strategy, and financial planning
- **C** Resilience of company strategy towards different climate scenarios

Risk Management

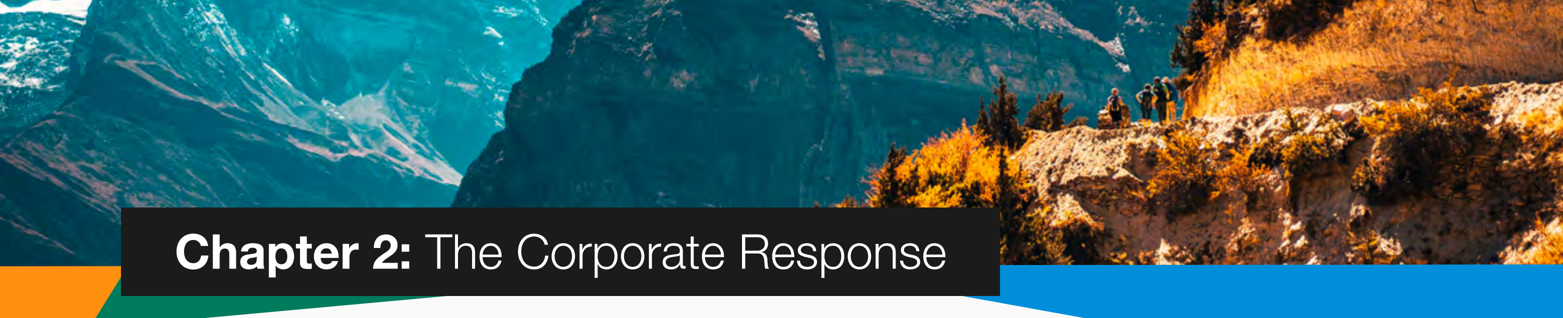
The processes used by the organization to identify, assess, and manage climate-related risks.

- **A** Processes to identify and assess climate risks
- **B** Processes to manage climate risks
- **C** Processes to integrate climate risks into overall risk management process

Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

- **A** Metrics used to assess CRRO
- **B** Calculation of Scopes 1-3 GHG emissions and related risks
- **C** Targets used to manage CRRO and performance against those



Chapter 2: The Corporate Response

The business case

Beyond meeting disclosure requirements, there are compelling reasons why businesses are making climate pledges and inviting higher scrutiny. Climate action and disclosure has become a key part of the business license to operate. Proactive disclosure builds trust with regulators and investors, and it can create competitive advantage like access to better lending rates. Further, transparency compels businesses to align ambitions and strategy with best practice and to address governance and performance shortcomings, hard but beneficial work that accelerates climate action, secures marketplace advantage, reduces risk, and builds long-term resilience.

Where to begin

A growing number of companies have been sharing information on carbon emissions and climate actions for the better part of two decades, but the nature of expected disclosure has changed markedly in that time, as has the number of companies in the game. In addition to the tens of thousands of companies now issuing sustainability reports and responding to ratings that track sustainability performance, more than 1,500 companies including BP, Google, LafargeHolcim, Nestlé, and Standard Chartered had made net zero commitments by the time this report was created. Some have gone further, pledging to become carbon negative and climate positive like Microsoft and IKEA, respectively. These levels of commitment heighten expectations for reporting how such promises are being achieved.

For companies considering the use of TCFD for the first time, the most challenging question is often where to begin. The global risk assessment firm Moody's suggests companies "Approach the process as a marathon, not a sprint," while Generation Asset Management says "Start where you are, with what you have" and recommends "...building up the data and analytics underpinning the disclosure over time."[25]

There is no one-size-fits-all approach to TCFD, and many companies encounter similar challenges. Jennifer McConkey, Senior Director of Operations and Sustainability of Principal Real Estate Investors in the US, offers: "Only by conducting [TCFD] assessments, sharing results, and discussing the implications together can we arrive at thoughtful mitigation strategies."[26] ArcelorMittal uses TCFD-aligned reporting to explain the actions it is taking to achieve its vision for a decarbonized steel sector. Its first Climate Action Report, published in 2019, includes TCFD-relevant statements and content as well as details on innovative low carbon steelmaking technologies. By combining these elements, the company is responding to demand that it present a clear plan regarding how it will meet its low carbon ambitions.

The experiences of early TCFD respondents offer useful insights to companies just getting underway. Aviva, the UK-based insurer and investor, is a widely recognized disclosure leader in its sector. It has developed its own risk and opportunity models for its investment and insurance portfolios. Ben Carr, Director of Analytics and Capital Modelling at Aviva, highlights that, even for a leader, there is always further to go:

We are further refining our assessment of climate-related risk and opportunity and continuing to embed it into our overall strategy, decision-making, risk management, and reporting frameworks. An inter-disciplinary team has been created with representation from across the business.[27]

As to the disclosures themselves, these come in a number of formats. Aviva's Carr continues, saying: "Due to our complex position as an asset owner, asset manager, and insurer, we create disclosures to respond to multiple audiences."[28]

Users of Aviva's climate disclosures include institutional investors, customers, NGOs, and regulators. The insurer uses three TCFD formats: a four-page summary within its strategic corporate report, a separate full report which runs over 20 pages and includes a technical appendix, and a dashboard summarizing climate metrics and targets.

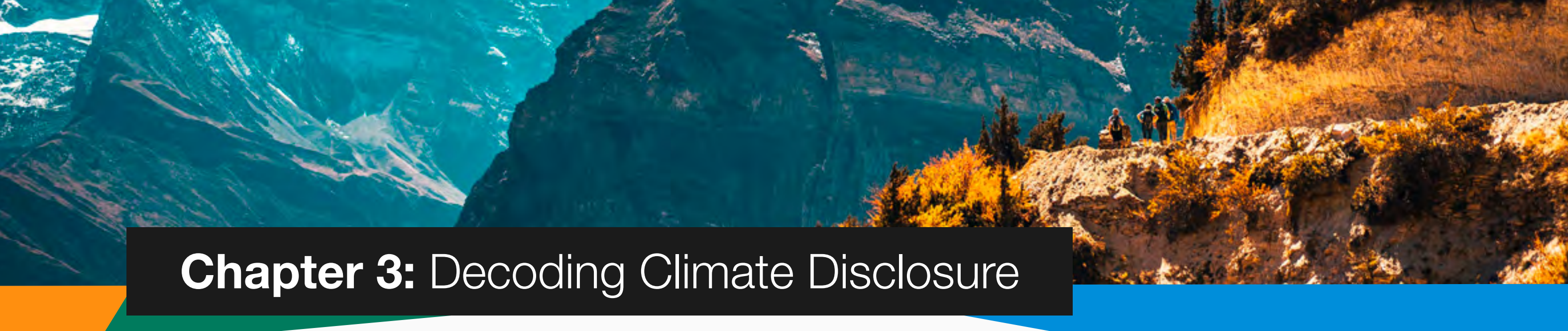
Learning from such reporting practices may be of value to those considering climate disclosure for the first time – and to those wishing to take it to the next level.

From piecemeal to systematic

Despite mounting calls for disclosure and the growing business rationale for it, the 2020 TCFD status report[29] reveals significant reporting gaps. Of 1,700 company reports surveyed, only four in ten disclose information on their businesses' exposure to transition and physical risks and opportunities even though such disclosure is one of the most important building blocks of TCFD (see a breakdown of TCFD recommendations in Figure 1). The status report shows even less progress in reporting on other TCFD elements like integration of climate-related risk into company management frameworks (present in under two of ten reports) and resilience of corporate strategy to climate

risk (disclosed in fewer than one in ten). These statistics reveal that even companies publicly committed to TCFD are not yet willing or able to present key pieces of information that regulators, investors, and other stakeholders need to assess and compare climate-related risk.

What most businesses need is a roadmap showing step-by-step how to develop quality climate disclosures that are investor-ready. This starts with a better understanding of the elements of TCFD. We explore TCFD's foundations and explain how to build on them in the following chapter.



Chapter 3: Decoding Climate Disclosure

Unpacking the elements of TCFD

For the uninitiated, the thought of creating investor-ready climate disclosures can be daunting. There is no prescribed TCFD reporting standard, only a framework. To help, TCFD has published a series of guidance documents for the energy, transport, materials and buildings, and agricultural and food sectors, as well as one for general audiences. Additionally, a technical supplement was produced (with ERM's support) for what is recognized as the most challenging element of TCFD-aligned reporting, climate-related scenario analysis.[30] Further guidance has since been published on risk management integration and disclosure as well. While welcome, even navigating this supporting guidance can be challenging.

Fortunately, many businesses will be pleased to know that they are further advanced than they realize. Their baseline can be understood by evaluating their processes and disclosure against a few simple gap analysis questions. These questions are shown in the following section along with an explanation of the four TCFD pillars. The output of this simple gap analysis process provides a launch pad for accelerated climate planning and action, plus a disclosure roadmap.

Governance
Key gap analysis questions

1. How do the board and board committees consider climate-related issues when reviewing and guiding strategy, major plans of action, and risk management policies?
2. How does the organization assign climate-related responsibilities to management-level positions or committees, and how do they report back to the board?
3. What are the processes by which management is informed about climate-related issues by others in the business?

Purpose

The vision and actions of the C-Suite and senior-level executives serve as both linchpin and catalyst to address the risks posed by climate change and seize the opportunities of the low-carbon economy. They are embodied in the governance structures and processes of the business, which define the accountability of the senior corporate decision-makers and incentivize progressive behavior.

The TCFD framework encourages disclosures on board and senior management climate oversight, responsible management structures such as committees, staff expertise, and the reporting systems used to communicate and manage a company's climate agenda. Furthermore, it seeks evidence of how climate is considered in strategic decision-making, acquisitions and divestitures, budgeting, and business planning. Additional information is sought on whether the organization monitors progress against climate as a strategic performance objective.

Marina Prada, Head of Sustainability Performance at Syngenta, explains the vital role of governance in assessing and addressing climate-related risk and opportunity:

Besides a firm commitment from the top, a key starting point is to form a cross-functional working group. Involving representatives from sustainability, strategy, risk management, finance, and other key functions ensures the right knowledge to identify gaps, conduct work – such as climate scenario analysis – and implement the necessary practices to enable disclosure and appropriately understand, govern, and manage climate issues.[31]

Strategy
Key gap analysis questions

1. What do you consider to be your material climate-related transition and physical risks and opportunities by business unit and/or geography across a range of time horizons?
2. How have you identified climate-related issues affecting the business segments, strategy, and financial planning?
3. How resilient are your strategies to climate-related risks and opportunities, including for scenarios assuming business as usual, a lower-carbon economy and a warmed world?

Purpose

A major TCFD innovation is its focus on the anticipated future impacts of climate change on the business. TCFD requires evaluation of multiple scenarios across long-term strategy horizons as well as plans to mitigate against potential risks and take advantage of the opportunities of a lower-carbon economy. The scenarios are expected to demonstrate that corporate strategy and plans are consistent with climate commitments such as stated net zero ambitions.

Strategy disclosures should address three areas. First, they must cover short, medium, and long-term time frames. This is necessary given physical climate impacts will continue to grow and not stabilize this century. Additionally, transitional market shifts may occur slowly, whereas stringent policies such as carbon pricing and technology innovations may create rapid cost curve inflections. Second, disclosures need to refer to plans across different parts of the business including units, product lines, and facilities. Examples would include anticipated market shrinkage and growth, regulation and policy, technology disruptions, and key inputs to products such as raw materials, water, and labor. Third, disclosures should examine the resilience of company strategy against different warming and energy transition scenarios. The financial quantification of these stress tests against different scenarios is often considered to be the most challenging recommendation in the TCFD framework.

As a representative of a major global bank that we interviewed commented, strategy underpins disclosure:

Companies can only disclose what they know about and are pushing on. Climate change is a major global risk but it needs to be treated in a more pertinent way by everyone. [32]

Risk Management
Key gap analysis questions

1. What are your processes for identifying and assessing climate-related risks and opportunities, and their relative importance, size, and scope?
2. How do you identify and consider existing and emerging regulatory requirements related to climate change, such as limits on emissions?
3. What processes do you use to manage climate-related risk, including how decisions are made to mitigate, transfer, accept, or control that risk?

Purpose

Close examination of all material climate and energy transition risks and opportunities is a key action expected of a TCFD-aligned business. Processes to identify, assess, quantify, and manage both threats and areas for strategic reorientation and growth are required. Information should also be provided on how climate information covering transition and physical climate risks (see below) is integrated into risk management frameworks.

Transition risks include policy and legal changes, reputational impacts, and shifts in market preferences, norms, and technology associated with the moves towards a lower-carbon economy. Conversely, transition opportunities arise from shifts towards more resource-efficient operating models, new markets, and funding.

Physical risks include chronic risks occurring over long-term time frames such as extreme heat, drought, and water availability. Acute physical risks may be shorter-term and possibly localized, like wildfires, flooding, and extreme weather. Both long and short-term impacts can affect working conditions and cause damage to infrastructure, logistics networks, and natural resources.

Metrics and Targets
Key gap analysis questions

1. What key metrics do you use to measure and manage climate-related risk and opportunity associated with water, energy, land use, and waste management?

2. What are your Scope 1, Scope 2, and Scope 3 GHG emissions, and the risks associated with each?

3. What are your key climate-related targets such as those related to GHG emissions, water usage, energy usage, and net revenue goals for the lower-carbon economy?

Purpose

Disclosure of the data and KPIs used to assess, track, and manage climate-related financial risk and opportunity are the focus here. Quantification of forward-looking risks is another challenging TCFD requirement, with a number of different methodologies in use. Likewise, attempting to quantify the commercial opportunities to be found in a lower-carbon world is new to most businesses and missing in most current disclosures. Examples include the shrinking and growing markets for internal combustion engines and electric powertrains, respectively.

Some quantification of business impact on the environment, like reporting on greenhouse gas emissions, is well established. This includes on-site emissions ('Scope 1' of the Greenhouse Gas Protocol)[33] and off-site energy including purchased electricity ('Scope 2'). Supply chain and product use phases ('Scope 3'), which often account for the majority of a business' emissions, are more challenging to calculate and thus often less complete.

Disclosure of commitments is also encouraged, including science-based and net zero targets, carbon pricing, and physical risk metrics such as the anticipated incidence of extreme weather events at a site.

Rachel Turner, Climate Change and Sustainability Manager at SSE, explains how forward-looking metrics have impacted the energy company:

Our assessments and single issue scenario reports have involved a huge cultural change across SSE, with perceptions, definitions and quantification of risk changing dramatically. For instance, we have calculated the £100m annual risk of extreme weather on our renewables output and the £300m cumulative impact of a disorderly transition of gas-fired power stations between 2030 and 2035.[34]

Three-phase approach to TCFD disclosures

That corporate climate reporting is limited and falls short of what is needed is not a surprise. Much that underpins TCFD is new to many companies, including amended governance structures, the use of complex scenarios and financial models to support decision-making, and the need to take the long-term view when assessing climate-related risk. In many businesses, there is a skills shortage for implementing these advanced practices and techniques. The difficulty of addressing these elements is reflected by the incomplete reporting of many businesses, especially ones undertaking such disclosure for the first time.

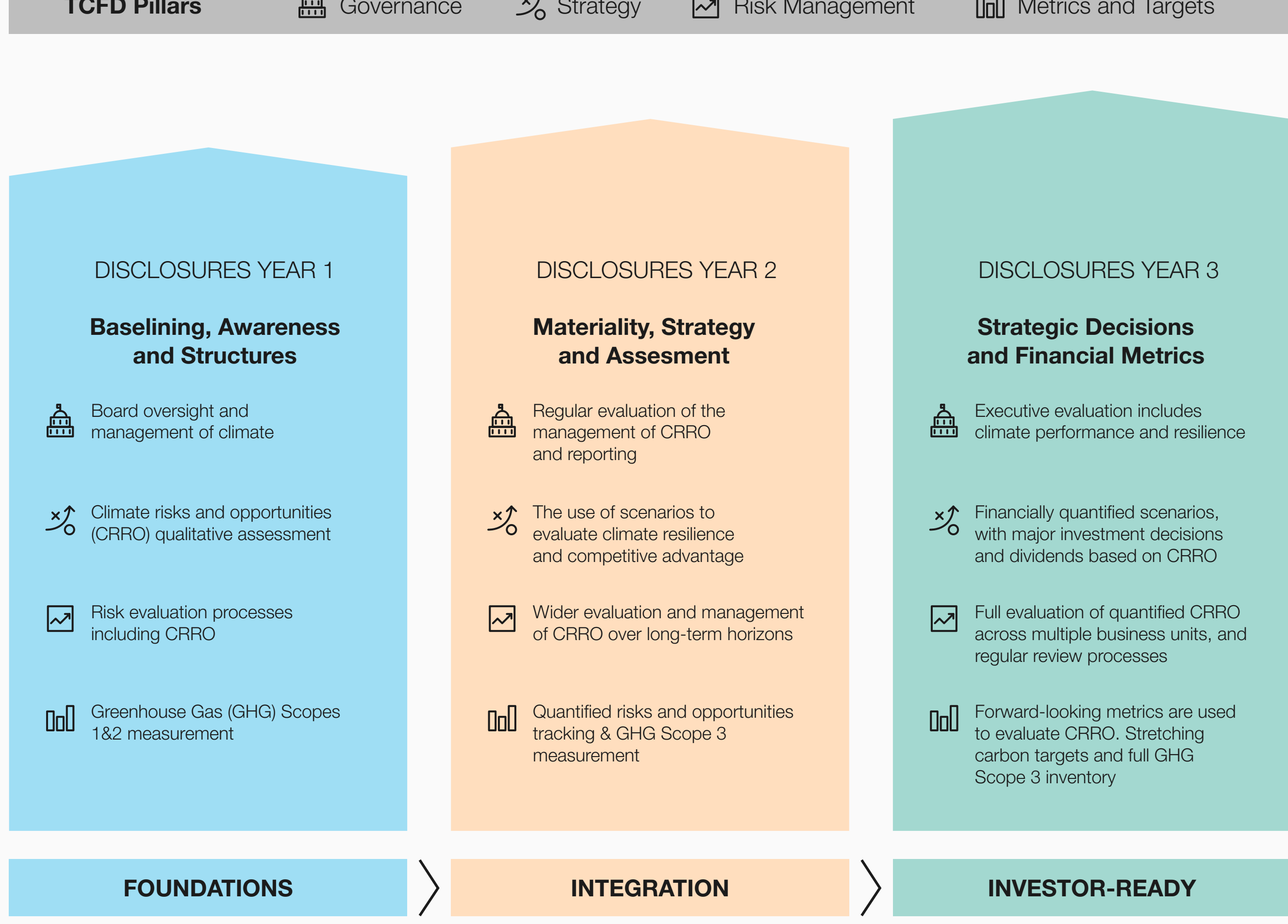
Thankfully, help is at hand. There are three key stages for a company to pass through to establish and reinforce their TCFD approach. These stages are summarized here and in the accompanying visual in Figure 2.

Three-phase approach

1. **Foundations:** Build disclosure foundations;
2. **Integration:** Integrate climate-related risk into decision-making and management systems; and
3. **Investor-ready:** Develop investor-ready disclosures built on robust scenarios and data analysis.

ERM has supported many businesses with understanding and reporting against TCFD since its launch. Every business is different, with varied starting points and operating environments, and sector-specific approaches are needed for the more advanced elements. However, many companies follow a similar pattern to establish their TCFD strategy and roadmap, develop their disclosure building blocks, and then evolve towards more sophisticated climate management processes and disclosures over time.

Figure 2: Three-phase approach to TCFD

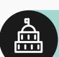


Foundations

The basis of the first and subsequent climate disclosures may be built from a gap analysis using questions like those explored above (and summarized in Figure 3), which helps a business understand its baseline position. The gap analysis should be supplemented with a competitor benchmark to signpost best practice. The content of a first TCFD disclosure is likely to report the state of play reflected by the gap analysis and benchmark, as well as the company's aspirations and plans to improve future reporting.

A first report will reference the key TCFD elements, including governance structures, climate strategy and plans, a high-level climate-related risk and opportunity assessment, and greenhouse gas (GHG) metrics. A base case scenario may also be evaluated, such as one aligned with the Paris Agreement.

Figure 3: TCFD Gap analysis questions



Governance

1. How do the board and board committees consider climate-related issues when reviewing and guiding strategy, major plans of action, and risk management policies?
2. How does the organization assign climate-related responsibilities to management-level positions or committees, and how do they report back to the board?
3. What are the processes by which management is informed about climate-related issues by others in the business?

Strategy

4. What do you consider to be your material climate-related transition and physical risks and opportunities by business unit and/or geography across a range of time horizons?
5. How have you identified climate-related issues affecting the business segments, strategy, and financial planning?
6. How resilient are your strategies to climate-related risks and opportunities, including for scenarios assuming business as usual, a lower-carbon economy and a warmed world?

Risk Management

7. What are your processes for identifying and assessing climate-related risks and opportunities, and their relative importance, size, and scope?
8. How do you identify and consider existing and emerging regulatory requirements related to climate change, such as limits on emissions?
9. What processes do you use to manage climate-related risk, including how decisions are made to mitigate, transfer, accept, or control that risk?

Metrics and Targets

10. What key metrics do you use to measure and manage climate-related risk and opportunity associated with water, energy, land use, and waste management?
11. What are your Scope 1, Scope 2, and Scope 3 GHG emissions, and the risks associated with each?
12. What are your key climate-related targets such as those related to GHG emissions, water usage, energy usage, and net revenue goals for the lower-carbon economy?

Integration

At this stage of disclosure the risk and opportunity assessment is deepened to include quantitative aspects, new datasets are used, and targets are tightened. Climate-related risk and opportunity is further integrated into corporate systems and processes such as enterprise risk management, and governance structures are strengthened. A range of scenarios is considered using publicly accessible methodologies, and the business model is stress-tested.

The use of scenarios allows the business to understand the outside-in perspective, in other words the effect of the climate and the human response on the business, under a number of hypothetical futures. As explained in the TCFD's Guidance on Scenario Analysis,[35] this provides new perspectives and unique insights, clarifies the predictable and uncertain elements in different futures, and reorients decision makers' mental models.

Commonly used scenarios and models include those developed by the International Energy Agency (IEA) and IPCC. These include climate scenarios, which examine future climate conditions (including temperature and precipitation) under different GHG concentrations, emission scenarios, which describe plausible greenhouse gas trajectories, and socioeconomic scenarios, which consider the development pathways of society and economies under different variables such as policies and technologies.

Investor-ready

In this phase, reporting is very advanced. Risks are further evaluated using more sophisticated scenarios, with data analyzed in more detail, such as by site or product line. Climate action is a material factor in assessing executive performance and is considered when deciding the shareholder dividend.

Financial quantification is fully embedded across all climate-related risks and opportunities, including the assessment of resilience and competitive advantage in different scenarios. Long-term strategic decisions are made with reference to climate, and when stretch ambitions are set. Disclosures are complete, comparable, and audit-ready (see Figure 4), including financial quantification.

Figure 4: Auditing considerations for climate disclosure

Stakeholder expectations for better-quality disclosures are raising the bar on the extent and scope of climate-related reporting. This includes the need for third-party auditing of content and the scrutiny of audit processes by oversight bodies. The UK's Financial Reporting Council (FRC) review in November 2020 found that auditors need to improve their consideration of climate-related risk when planning and executing audits.

Today's international auditing standards require any consideration of material climate-related matters to be disclosed within company financial statements. Furthermore, a review of related narrative disclosures in accompanying Directors' or Strategic Reports is also required. Voluntary inclusion of climate-related disclosures in annual reporting is also increasing.

As a result of the shifts noted above, regulator attention is turning to the technical competencies needed to audit these reports and other climate-related disclosures.

Beth Wyke, Global Head of Assurance at ERM CVS, ERM's specialist certification and verification services subsidiary, highlights five key considerations for climate-related disclosures for reporting companies and their assurance providers.

1. **Risk identification:** the robustness of the process for identifying material climate-related financial risk and whether this process is integrated into the company's risk management approach. Ongoing monitoring and updating of the initial risk identification are also critical.
2. **Materiality:** the application of the materiality concept in assessing the climate-related financial risk and opportunity identified.
3. **Scenario analysis:** the processes used for selecting and conducting scenario analysis, including the source and reliability of the data and other information used as inputs.
4. **Audit evidence:** a sufficient and appropriate evidence base for disclosures, and the existence of a robust control environment covering climate-related risk assessment and reporting processes.
5. **Sensitivity analysis:** recognition of the key uncertainties and assumptions that underpin climate-related or TCFD-aligned disclosures and their potential strategic and financial implications.

CHAPTER 4: Anticipating the Next Wave

Mandatory disclosure of climate-related risk is taking hold globally and accelerating. This is being driven by governments and financial regulators seeking to ensure the climate crisis does not overwhelm markets, and by investors advocating for the higher-quality information they need to determine the climate resilience of their portfolios.

TCFD guides corporate climate disclosure and helps companies better understand climate impacts on their businesses. It complements other guidelines and frameworks like SASB and GRI, and its use enhances overall environmental, social, and governance (ESG) measurement and reporting.

Climate disclosure is new and complex. Many businesses are struggling to meet rapidly growing demand for climate-related data and to understand the challenges climate change presents to their business models. But businesses who take the time to decode TCFD stand to benefit from early comprehension of the opportunities presented by the transition to a lower-carbon economy. Leaders in this space can hope for better access to capital and markets as well as higher-trust relationships with investors and regulators. The tools underpinning TCFD help companies understand climate risk and feed more informed strategies and decision-making.

Increasingly sophisticated stakeholder demands suggest where the growing disclosure agenda is headed. Ben Carr of Aviva expects an evolution of forward-looking metrics that will allow improved climate-related performance comparability and accelerate TCFD uptake. Representing the corporate perspective, Marina Prada of Syngenta predicts the following:

As companies, capital markets, and other stakeholders seek to better understand the role of business in a more climate uncertain future, the need for further and more accurate disclosures will only increase. Climate disclosure is essential to support the required transformation, but it is only the beginning; the same will soon hold true for biodiversity and other nature-related disclosures.[36]

Climate disclosure is becoming mandatory, but, even if it were not, understanding climate-related risk and opportunity is necessary for your business's survival. It will soon be obligatory in due diligence processes and central to maintaining license to operate, but the smart money realizes it is essential to strategy, planning, and competitiveness now. So, there is no reason to wait for regulation. Start your company's climate gap analysis, benchmark, and planning today to ensure you can anticipate the reinvention climate change will demand for your business to thrive over the long-term.

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Endnotes

[1] Rigaud, K. et al. 2018. Groundswell: Preparing for Internal Climate Migration. Online posting. The World Bank. Accessed 20 April 2021. https://openknowledge.worldbank.org/handle/10986/29461

[2] IFRS. 2021. IFRS Foundation Trustees announce strategic direction and further steps based on feedback to sustainability reporting consultation. Online posting. IFRA Foundation. Accessed 20 April 2021. https://www.ifrs.org/news-and-events/2021/03/trustees-announce-strategic-direction-based-on-feedback-to-sustainability-reporting-consultation/

[3] BusinessGreen. 2020. CDP reporting record: Almost 10,000 companies disclose environmental data in 2020. Online posting. Greenbiz. Accessed 20 April 2021. https://www.greenbiz.com/article/cdp-reporting-record-almost-10000-companies-disclose-environmental-data-2020

[4] GRI. 2020. Sustainability reporting is growing, with GRI the global common language. Online posting. GRI. Accessed 20 April 2021. https://www.globalreporting.org/about-gri/news-center/2020-12-01-sustainability-reporting-is-growing-with-gri-the-global-common-language/

[5] Min, H. 2020. China's net zero future. Online posting. Race to Zero. Accessed 20 April 2021. https://racetozero.unfccc.int/chinas-net-zero-future/

[6] https://ec.europa.eu/clima/policies/strategies/2050_en

[7] https://www.fsb-tcfd.org/support-tcfd/

[8] TCFD. 2020. More than 1,000 Global Organizations Declare Support for the Task Force on Climate-related Financial Disclosures and its Recommendations. Online posting. TCFD. Accessed 20 April 2021. https://assets.bbhub.io/company/sites/60/2020/02/PR-TCFD-1000-Supporters_FINAL.pdf

[9] Fink, L. 2021. Larry Fink's 2021 letter to CEOs. Online posting. BlackRock. Accessed 20 April 2021. https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter

[10] Taraporevala, C. 2021. CEO's Letter on Our 2021 Proxy Voting Agenda. Online posting. State Street. Accessed 20 April 2021. https://www.ssga.com/us/en/institutional/ic/insights/ceo-letter-2021-proxy-voting-agenda

[11] https://www.ubs.com/global/en/asset-management/insights/sustainable-and-impact-investing/2020/climate-change-engagement-in-action.html

[12] https://www.climateaction100.org/approach/the-three-asks/

[13] https://www.climateaction100.org/approach/engagement-process/

[14] https://www.unepfi.org/net-zero-alliance/alliance-members/

[15] IIGCC. 2021. Investor Expectations for Paris-aligned Accounts. Online posting. IIGCC. Accessed 20 April 2021. https://www.iigcc.org/resource/investor-expectations-for-paris-aligned-accounts/

[16] Herren Lee, A. 2021. A Climate for Change: Meeting Investor Demand for Climate and ESG Information at the SEC. Online posting. US Securities and Exchange Commission. Accessed 20 April 2021. https://www.sec.gov/news/speech/lee-climate-change

[17] https://www.sec.gov/news/public-statement/lee-climate-change-disclosures

[18] New Zealand Ministry for the Environment. 2021. Mandatory climate-related financial disclosures. Online posting. New Zealand Ministry for the Environment. Accessed 20 April 2021. https://www.mfe.govt.nz/climate-change/climate-change-and-government/mandatory-climate-related-financial-disclosures

[19] The UK's regulation will first apply in 2021 to about two-thirds of public companies which are known as premium listed, meaning they comply with more stringent standards above and beyond the EU minimum standards all public companies must meet. https://www.lseg.com/markets-products-and-services/our-markets/london-stock-exchange/equities-markets/raising-equity-finance/main-market/companies

[20] UK HM Treasury. 2020. Interim Report of the UK's Joint Government-Regulator TCFD Taskforce. Online posting. UK HM Treasury. Accessed 20 April 2021. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/933782/FINAL_TCFD_REPORT.pdf

[21] John, A. 2020. Hong Kong sets new climate disclosure rules, aligns with global standard. Online posting. Reuters. Accessed 20 April 2021. https://www.reuters.com/article/us-hong-kong-regulator-climate-change/hong-kong-sets-new-climate-disclosure-rules-aligns-with-global-standard-idUSKBN28R0Y5

[22] https://ec.europa.eu/info/publications/non-financial-reporting-guidelines_en#-climate

[23] Armour, C. 2020. Managing climate risk for directors. Online posting. Australian Institute for Company Directors. Accessed 20 April 2021. https://aicd.companydirectors.com.au/membership/company-director-magazine/2021-back-editions/february/managing-climate-risk-for-directors

[24] https://www.fsb-tcfd.org/recommendations/

[25] TCFD. 2020. Task Force on Climate-related Financial Disclosures 2020 Status Report. Online posting. TCFD. Accessed 20 April 2021. https://www.fsb.org/wp-content/uploads/P291020-1.pdf

[26] GRESB. 2020. Tackling TCFD: Early Lessons in Climate Risk Disclosure. Online posting. GRESB. Accessed 20 April 2021. https://gresb.com/tackling-tcfd-early-lessons-climate-risk-disclosure/

[27] Ben Carr, Director of Analytics and Capital Modelling, Aviva. 26 March 2021. Conversation with ERM.

[28] Ibid

[29] TCFD. 2020. Task Force on Climate-related Financial Disclosures 2020 Status Report. Online posting. TCFD. Accessed 20 April 2021. https://www.fsb.org/wp-content/uploads/P291020-1.pdf

[30] ERM helped develop the TCFD recommendations by contributing to the scenario analysis section and developing the technical supplements on scenario analysis and climate-related disclosures released in 2017. ERM. 2017. ERM contributes to game changing new recommendations on disclosure of financial impacts from climate change. Online posting. ERM. Accessed 20 April 2021. https://www.erm.com/news/erm-contributes-to-game-changing-new-recommendations-on-disclosure-of-financial-impacts-from-climate-change/

[31] Marina Prada, Head of Sustainability Performance, Syngenta. 9 March 2021. Conversation with ERM.

[32] Anonymized global bank. 8 April 2021. Conversation with ERM.

[33] WBCSD and WRI. 2004. The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard. Online posting. Greenhouse Gas Protocol. Accessed 20 April 2021. https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf

[34] Rachel Turner, Climate Change and Sustainability Manager, SSE. 20 April 2021. Conversation with ERM.

[35] TCFD. 2020. Task Force on Climate-related Financial Disclosures Guidance on Scenario Analysis for Non-Financial Companies. Online posting. TCFD. Accessed 20 April 2021. https://www.fsb.org/wp-content/uploads/P291020-3.pdf

[36] Marina Prada, Head of Sustainability Performance, Syngenta. 9 March 2021. Conversation with ERM.

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