TCFD WORKSHOP

Session 4 – Risk Management

February 2022
## TCFD Series of Workshops

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* There is no supplemental guidance on risk management for non-financial companies
Introduction
Introduction to the Risk Management Recommendation

In this session, we will discuss the Risk Management recommendation.

Core Elements of the TCFD Recommendations

Governance
- Disclose the company’s governance around climate-related risks and opportunities.

Strategy
- Disclose the actual and potential impacts of climate-related risks and opportunities on the company’s businesses, strategy, and financial planning.

Risk Management
- Disclose the processes used by the company to identify, assess, and manage climate-related risks.

Metrics and Targets
- Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities.

Note: The Task Force uses the term “companies” to refer to entities with public debt or equity as well as asset managers and asset owners, including public- and private-sector pension plans, endowments, and foundations.

# Introduction to the Risk Management Recommendation (continued)

The Task Force’s Risk Management recommendation is supported by three recommended disclosures

<table>
<thead>
<tr>
<th>Governance</th>
<th>Strategy</th>
<th>Risk Management</th>
<th>Metrics and Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclose the company’s governance around climate-related risks and opportunities.</td>
<td>Disclose the actual and potential impacts of climate-related risks and opportunities on the company’s businesses, strategy, and financial planning where such information is material.</td>
<td>Disclose how the company identifies, assesses, and manages climate-related risks.</td>
<td>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</td>
</tr>
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<table>
<thead>
<tr>
<th>Recommended Disclosures</th>
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<th>Recommended Disclosures</th>
<th>Recommended Disclosures</th>
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<tbody>
<tr>
<td>a) Describe the board’s oversight of climate-related risks and opportunities.</td>
<td>a) Describe the climate-related risks and opportunities the company has identified over the short, medium, and long term.</td>
<td>a) Describe the company’s processes for identifying and assessing climate-related risks.</td>
<td>a) Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process.</td>
</tr>
<tr>
<td>b) Describe management’s role in assessing and managing climate-related risks and opportunities.</td>
<td>b) Describe the impact of climate-related risks and opportunities on the company’s businesses, strategy, and financial planning.</td>
<td>b) Describe the company’s processes for managing climate-related risks.</td>
<td>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</td>
</tr>
<tr>
<td>c) Describe the resilience of the company’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</td>
<td>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company’s overall risk management.</td>
<td>c) Describe the targets used by the company to manage climate-related risks and opportunities and performance against targets.</td>
<td></td>
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</table>

Source: TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
Introduction to the Risk Management Recommendation (continued)

Various TCFD publications offer guidance on the Risk Management recommendation.

Final Recommendations and Recommended Disclosures

- 2017 Report
  - Provides details on the following:
    - Context and background on the need for climate-related financial disclosures
    - The Task Force’s remit from the Financial Stability Board
    - TCFD general framework, including recommendations and recommended disclosures

Implementation Guidance

- 2021 Implementation Guidance (Annex)
  - Provides guidance on the application of the recommendations as well as implementation guidance for the following:
    - All sectors
    - Four financial industries
    - Four groups of non-financial companies the Task Force considers more likely to be affected financially than others given their exposure to certain transition and physical risks

Additional Supporting Materials

- 2017 Scenario Analysis Technical Supplement
- 2020 Guidance on Risk Management Integration and Disclosure
- 2020 Guidance on Scenario Analysis for Non-Financial Companies
- 2021 Guidance on Metrics, Targets, and Transition Plans

Visit fsb-tcfd.org/publications to access all of the Task Force’s reports, guidance, and other materials.
## Disclosure Varies Across Recommendations

Disclosure of the three Risk Management recommended disclosures grew significantly between 2018 and 2020, but still lags most Strategy and all Metrics and Targets recommended disclosures.

### TCFD-Aligned Disclosure by Year, for Each Recommended Disclosure

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Recommended Disclosure</th>
<th>% Point Change ’18–’20</th>
<th>% of Companies Disclosing Information Aligned with TCFD Recommended Disclosures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Governance</strong></td>
<td>a) Board Oversight</td>
<td>16</td>
<td>9% 13% 25%</td>
</tr>
<tr>
<td></td>
<td>b) Management's Role</td>
<td>9</td>
<td>9% 11% 18%</td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td>a) Climate-Related Risks and Opportunities</td>
<td>14</td>
<td>16% 20% 30% 52%</td>
</tr>
<tr>
<td></td>
<td>b) Impact on company</td>
<td>13</td>
<td>5% 7% 13%</td>
</tr>
<tr>
<td></td>
<td>c) Resilience of Strategy</td>
<td>8</td>
<td>5% 7% 13%</td>
</tr>
<tr>
<td><strong>Risk Management</strong></td>
<td>a) Risk Identification and Assessment Processes</td>
<td>14</td>
<td>16% 20% 30%</td>
</tr>
<tr>
<td></td>
<td>b) Risk Management Processes</td>
<td>15</td>
<td>14% 17% 29%</td>
</tr>
<tr>
<td></td>
<td>c) Integration into Overall Risk Management</td>
<td>17</td>
<td>10% 17% 27%</td>
</tr>
<tr>
<td><strong>Metrics and Targets</strong></td>
<td>a) Climate-Related Metrics</td>
<td>10</td>
<td>34% 40% 44%</td>
</tr>
<tr>
<td></td>
<td>b) Scope 1, Scope 2, and Scope 3 GHG Emissions</td>
<td>10</td>
<td>27% 31% 37%</td>
</tr>
<tr>
<td></td>
<td>c) Climate-Related Targets</td>
<td>13</td>
<td>21% 24% 34%</td>
</tr>
</tbody>
</table>

Note: Results are based on the Task Force's artificial intelligence analysis of 1,651 public companies.
Source: TCFD, 2021 Status Report, 2021
Importance of the Risk Management Recommendation

Disclosing risk management processes provides important context for investors and other users of disclosure.

Investors and other users of climate-related financial disclosures are interested in understanding how a company’s climate-related risks are identified, assessed, and managed and whether those processes are integrated into existing risk management processes. Such information supports users of climate-related financial disclosures in evaluating the company’s overall risk profile and risk management activities.

Providing Decision Useful Information to Investors and Other Users

Based on a survey to understand the most useful climate-related information for making financial decisions, users identified the following types of risk management information as the most useful:

- Description of whether the company considers existing and emerging regulatory requirements related to climate change (e.g., limits on emissions) as part of its risk assessment processes
- The company's processes for identifying and assessing climate-related risks
- The company's processes for prioritizing climate-related risks, including how materiality determinations are made
- The company's processes for managing climate-related risks, including how it makes decisions to mitigate, transfer, accept, or control those risks
- How the company's processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management

Decision Useful Climate-Related Information

For its 2020 status report, the Task Force conducted a survey to identify specific climate-related information users find the most useful when making financial decisions. The Task Force asked users to rate the usefulness of specific and discrete types of information—drawn from the guidance for all sectors—for its 11 recommended disclosures.
Overview of the Risk Management recommendation
Structure of the Risk Management Recommendation Overview Section

The overview of each of the three recommended disclosures under the Risk Management recommendation will follow the structure provided below.

i. Describing the guidance for all sectors associated with the recommended disclosure

ii. Drilling down into specific elements of the recommended disclosure

iii. Providing examples of reporting that align with the recommended disclosure
Recommended Disclosure *Risk Management a)*

The first recommended disclosure under the Risk Management recommendation — *Risk Management a)* — asks companies to disclose their processes for identifying and assessing climate-related risks.

**Risk Management**

Disclose how the company identifies, assesses, and manages climate-related risks.

### All Sectors

<table>
<thead>
<tr>
<th>Recommended Disclosure a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the company’s processes for identifying and assessing climate-related risks.</td>
</tr>
</tbody>
</table>

Companies should describe their risk management processes for identifying and assessing climate-related risks. An important aspect of this description is how companies determine the relative significance of climate-related risks in relation to other risks.

Companies should describe whether they consider existing and emerging regulatory requirements related to climate change (e.g., limits on emissions) as well as other relevant factors considered.

Companies should also consider disclosing the following:

- processes for assessing the potential size and scope of identified climate-related risks and
- definitions of risk terminology used or references to existing risk classification frameworks used.

*Source: TCFD, Annex: Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures, 2021*
Example of Disclosure for Risk Management

Describe the company’s processes for identifying and assessing climate-related risks

Example Disclosure: Schlumberger Limited (Energy)

**TCFD alignment:** the following example describes an energy company’s processes for identifying and assessing climate-related risks. The report describes how business risks related to climate change are identified, at a corporate level, based on input from a variety of internal and external sources, including through local risk assessment, country-specific climate assessments in line with TCFD, customers, the Board, investors, and other stakeholder feedback. The report also provides case studies on how the company applies learnings from its risk assessments.

**Risk Management**

The company’s risk identification is performed annually at two levels. The ERC performs a corporate-level risk mapping exercise, which involves the CEO and several other members of senior management, and while maintaining oversight, delegates operational (field-level) risk assessment and management to the company’s various geographies, businesses, and functions. To the extent that the ERC identifies recurring themes from the operational risk mapping exercises, they are acted on at the corporate level. Members of the ERC meet formally at least once a year, and more frequently on an ad hoc basis, to define and improve the risk mapping process, and to review and monitor the results of those exercises and those that have been delegated.

We believe that our comprehensive risk assessment program is reasonably designed to identify and manage climate change-related enterprise-wide risks that have the potential to significantly affect our businesses over the short, medium, and longer terms. Our risk assessments cover exposures to both physical and transition climate-related risks and their respective financial impact.

The climate-related risks we routinely monitor as part of this process include loss of containment and well control, country-specific legislation and regulations, environmental compliance, financial risk associated with climate change, perception of industry due to climate change dialogue, and extreme weather. At a corporate level, business risks related to climate change are identified based on input from a variety of internal and external sources (e.g., local risk assessment, country-specific climate assessments in line with TCFD, customers, the Board, investors, and other stakeholder feedback). A corporate risk map is developed and reviewed with the CEO and his leadership team. Climate change and energy transition are two enterprise-level risks. Enterprise-level risks are developed into various scenarios, guided by subject matter experts, and these scenarios are modeled to assess potential financial impacts. Results of any financial stress tests are discussed with our banks to assess liquidity needs over a three-year time span, along with probable effects on credit ratings and options to deal with each scenario. In the case of acute physical risk, crisis management scenarios are created and tested in desktop exercises at the local and corporate level by the respective management. At the asset level, risks are included in the operational risk maps, which help to identify and assess potential threats to the mid- to long-term strategic objectives of the various business units. These risks are monitored and embedded into the business planning cycle. Risks are scored on likelihood, severity, time horizon, and financial impact. Where applicable, management objectives are set to reflect completion of mitigation plans.

Source: Schlumberger Limited, 2020 Sustainability Report, pp. 20-21

Note: Some content was reformatted in order to fit the page; and some content has been removed, denoted by […]. The examples included are not intended to represent “best practice” nor demonstrate disclosures that fully meet the associated recommended disclosure. They may not be applicable to all sectors and should be considered within the framework of the sector in which the company operates. The mention of specific companies does not imply that they are endorsed by the TCFD or its members in preference to others of a similar nature that are not mentioned.
Example of Disclosure for Risk Management a) (continued)

Describe the company’s processes for identifying and assessing climate-related risks.

Example Disclosure: Schlumberger Limited (Energy)

TCFD alignment: the following example describes an energy company’s processes for identifying and assessing climate-related risks. The report describes how business risks related to climate change are identified, at a corporate level, based on input from a variety of internal and external sources, including through local risk assessment, country-specific climate assessments in line with TCFD, customers, the Board, investors, and other stakeholder feedback. The report also provides case studies on how the company applies learnings from its risk assessments.

Climate Risk Assessments

Country-level climate risk assessments provide a practical way to understand climate-related risks and common issues across the organization. For these, we work with a leading sustainability consultant to review the impact of climate issues on our direct operations. Climate-related risks (physical and financial, including transition risks) are assessed using scenario-based analysis.

While there are country-specific concerns, some commonalities across geographies are acute physical risks associated with extreme weather (e.g., storm surges, droughts, heat waves, flooding, rain, snow); chronic physical risks such as the potential impact of sea-level rise on our global footprint, water availability, and protected marine life; and transition risks such as policy and legal risks, the impact of a carbon tax on Schlumberger and our customers, the cost of electrifying our operations, and adapting our technology portfolio to changing customer preference. We have completed 75% of the work on our planned country-level climate risk assessments.

The following case studies are examples of how we apply the learnings from these assessments:

- Chronic Physical Risk Case Study: One country assessment indicated that 62% of our locations in that country could be exposed to coastal flooding due to sea-level rise by 2050. To address this risk, a decision was made—supported by the Board and Schlumberger leadership—to perform a scenario-based assessment across the entirety of the company for all locations potentially at risk of coastal flooding. This was completed in 2020 and mitigation plans were developed for all locations identified as having a potential future risk of coastal flooding (e.g., reviewing flood insurance and lease agreements), which constituted less than 1% of our global facility footprint.

Source: Schlumberger Limited, 2020 Sustainability Report, pp. 20-21

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### Risk Management b)

*Risk Management b)* asks companies to disclose their processes for managing climate-related risks.

<table>
<thead>
<tr>
<th>Risk Management</th>
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</thead>
<tbody>
<tr>
<td>Disclose how the company identifies, assesses, and manages climate-related risks.</td>
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</table>

#### All Sectors

<table>
<thead>
<tr>
<th>Recommended Disclosure b)</th>
<th>Describe the company’s processes for managing climate-related risks.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Companies should describe their processes for managing climate-related risks, including how they make decisions to mitigate, transfer, accept, or control those risks.</td>
</tr>
<tr>
<td></td>
<td>In addition, companies should describe their processes for prioritizing climate-related risks, including how materiality determinations are made within their companies.</td>
</tr>
<tr>
<td></td>
<td>In describing their processes for managing climate-related risks, companies should address the risks included in Tables A1.1 and A1.2 (pp. 75–76) of the <em>Guidance</em>, as appropriate.</td>
</tr>
</tbody>
</table>

Example of Disclosure for Risk Management b)
Describe the company’s processes for managing climate-related risks

Example Disclosure: Cemex (Materials and Buildings)

**TCFD alignment:** The following example describes Cemex’s processes for identifying, assessing, mitigating, and monitoring risks, which include climate-related risks. The inclusion of climate-related risks is made clear through a mapping of TCFD recommended disclosures to specific pages in the report.

The company’s approach to managing risks are described under “Risk Mitigation,” and on p. 89, the report describes how Cemex mitigates specific climate-related risks (one example included below).

**CEMEX Mitigation Actions:**
- CEMEX has set and publicly announced its 2030 reduction target for which it developed a CO2 Roadmap including specific reduction initiatives for each cement site and identifying the resources (CAPEX) and calendar for their implementation. Both the target and roadmap have been verified by Carbon Trust, ensuring technical feasibility of the considered technologies as well as adequate governance and a robust strategy to reduce emissions. Each region monitors on a monthly basis its site-by-site plan to ensure its implementation and resources allocation.

Source: Cemex, 2020 Integrated Report, pp. 87 and 89
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**Risk Management c)**

*Risk Management c)* asks companies to disclose how processes for identifying, assessing, and managing climate-related risks are integrated into their overall risk management.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Disclose how the company identifies, assesses, and manages climate-related risks</td>
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</table>

### All Sectors

<table>
<thead>
<tr>
<th>Recommended Disclosure c)</th>
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<tbody>
<tr>
<td>Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company’s overall risk management.</td>
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</table>

Companies should describe how their processes for identifying, assessing, and managing climate-related risks are integrated into their overall risk management.

Risk Management c): Clarification on Disclosure

In its 2019 status report, the TCFD shared the results of a comprehensive survey on the adoption and use of the TCFD recommendations. Part of the survey asked companies that had implemented or were implementing the TCFD recommendations to describe issues they encountered as part of their implementation.

For the Risk Management recommendation, nearly 50% of the companies indicated disclosing risk management processes around climate-related issues was challenging because their processes apply to all issues, not just climate. Companies did not want to disclose their risk management processes around climate-related issues separately from their disclosure of their general risk management processes, which apply to all types of issues.

To address this concern, the Task Force clarified that it did not intend for companies with comprehensive risk management processes that address climate-related issues to create separate processes or duplicate existing disclosures. If a company’s disclosures clearly describe its risk management processes and it is clear those processes cover climate-related issues, then no further disclosure may be needed.

In addition, companies have asked how explicit they should be on whether climate is integrated into existing processes or if it is a separate process. The following slides will provide an illustrative example.
Example of Disclosure for Risk Management c)

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company’s overall risk management

Example Disclosure: ANZ Banking Group Ltd (Banking)

TCFD alignment: the following example describes how climate-related risks fit into Australia and New Zealand (ANZ) Banking Group Limited’s overall risk management framework and how these risks are included in the Group and Institutional Risk Appetite Statements to ensure they are appropriately identified and assessed.

<table>
<thead>
<tr>
<th>Risk Management</th>
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<tbody>
<tr>
<td>Climate Risk Management</td>
</tr>
<tr>
<td>We have disclosed our most material social and environmental risks in our 2019 Annual Report (see page 46) on anz.com/annualreport in accordance with the ASX Corporate Governance Principles and Recommendations. Our most material climate-related risks and opportunities result from our lending to business and retail customers, including credit-related losses incurred as a result of a customer being unable to repay debt.</td>
</tr>
<tr>
<td>Under our risk management framework, our material risk category of Credit Risk incorporates the risks associated with lending to customers that could be impacted by climate change or by changes to laws, regulations, or other policies such as carbon pricing and climate change adaptation or mitigation policies. It also includes changes to the cost and level of insurance cover available to our customers.</td>
</tr>
<tr>
<td>We also specifically include climate change as one of our Principal Risks and Uncertainties (available on anz.com/annualreport). Climate change risk is included in the Group and Institutional Risk Appetite Statements to ensure the risk is appropriately identified and assessed.</td>
</tr>
<tr>
<td>We continue to develop an organisational culture that encourages regular discussion and consideration of emerging climate-related risks. Our Risk team is working with our bankers, encouraging them to talk with customers about managing the risks and opportunities associated with climate change, assisting us to progress our low carbon transition target focused on our largest emitting customers.</td>
</tr>
</tbody>
</table>

Source: Australia and New Zealand Banking Group Limited, 2019 Climate-Related Financial Disclosures, 2019, p. 5
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Example of Disclosure for Risk Management c) (continued)

How explicit should disclosures be on whether climate is integrated into existing processes or if it is a separate process

Example Disclosure: Société Générale Group (Banking)

**TCFD alignment:** the following example describes Société Générale Group’s use of the TCFD definitions for climate-related transition and physical risks, explains how climate-related risks are a driver of existing risks, and then indicates the “existing risk management governance framework and processes have simply been updated to include climate risk factors.”

**Managing climate risks**

In terms of transition risks, physical risks and litigation and legal risks, Société Générale has adopted the definitions given by the Task Force on Climate-related Financial Disclosures (TCFD). The Group does not view the risks associated with climate change as a new risk category but rather as an aggravating factor for the categories already covered by the Bank’s risk management system (credit risks, operational risks, market risks, etc.). Accordingly, the existing risk management governance framework and processes have simply been updated to include climate risk factors; work in such respect continues to ensure that the increasing relevance of such factors is properly taken into account.

Two of the three core themes of the Group’s climate strategy directly relate to risk management: the implementation of policies to manage the social and environmental impact of the Group’s activities (see: E&S risk management in the businesses to promote fair and responsible growth, page 277) and greater consideration of climate-change risks within Société Générale’s credit policy.

The climate vulnerability indicator and the impact of transition risks on customers’ credit risk are detailed in Chapter 4.5.5 Risk measurement and internal ratings, paragraph: Climate risk - Measuring sensitivity to transition risk, page 199.

**Identification of Physical Risks for the Insurance Business**

The Insurance activity’s sensitivity to climate risks varies depending on the type of product. Life-insurance assets are mainly invested in bond securities, predominantly issued by States and sectors that are relatively sheltered from climate risks (i.e. European countries and the financial services sector). Similarly, the assets held via property investment solutions are mainly office properties and are located in France.

The climate risk in respect of non-life insurance (cover for storms, hail, snow and natural disasters under home insurance, professional property insurance and auto insurance) is monitored and managed through underwriting and reserving and reinsurance policies, which are reviewed annually and approved by the Board of Directors. Lastly, the Company’s equity levels take into account the potential occurrence of a certain number of climate-related events. Climate risks are in particular taken into account as part of the annual Own Risk and Solvency Assessment (ORSA) conducted in accordance with the Solvency 2 Directive.

Source: Société Générale Group, Universal Registration Document 2020, 2020, p. 284

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Discussion question

• Which information from the Risk Management recommended disclosures do you believe is the most difficult to disclose, and why?
Overview of integrating climate-related risks into existing processes
Background

The Task Force developed Risk Management Integration and Disclosure guidance to address specific issues identified by preparers in implementing its Risk Management recommendation.

Task Force published four recommendations in 2017, with one on Risk Management

For risk management, the Task Force recommends companies disclose how they identify, assess, and manage climate-related risks. The recommendation is accompanied by three recommended disclosures, as shown below.

Task Force conducted survey in late 2018

As part of its 2019 status report, the Task Force conducted a survey to better understand companies’ efforts to implement the TCFD recommendations and associated challenges and found the following:

- 75% of companies surveyed indicated the Risk Management recommendation is difficult to implement and
- several of these companies indicated they do not have processes for identifying, assessing, or managing climate-related risks.

Task Force developed risk management guidance in 2020

The Task Force developed guidance on Risk Management Integration and Disclosure to help address some of the issues companies identified.

The guidance is aimed at companies that are interested in integrating climate-related risks into their existing risk management processes and disclosing information on their risk management processes in alignment with the TCFD recommendations.

Recommended Disclosures

a) Describe the company’s processes for identifying and assessing climate-related risks.

b) Describe the company’s processes for managing climate-related risks.

c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company’s overall risk management.
Unique Characteristics of Climate-Related Risks

At the heart of integrating climate-related risks into existing risk management processes is a solid understanding of the unique characteristics of these risks.

- To understand the unique characteristics of climate-related risks, it is important to understand possible implications of climate change.
- Possible implications of continued warming of the Earth are wide ranging, affecting infrastructure, energy, food, water supplies, etc.
- For companies, this means climate change can affect their facilities and operations, supply and distribution chains, employees, and customers.

Unique Characteristics

The unique characteristics of climate-related risks are summarized here — understanding these is critical to understanding how climate-related risks may affect a company.

1. Different effects based on geography and activities
2. Longer time horizons and long-lived effects
3. Novel and uncertain nature
4. Changing magnitude and non-linear dynamics
5. Complex relationships and systemic effects

Possible implications of temperature increases

<table>
<thead>
<tr>
<th>Physical Impacts</th>
<th>&lt;2°C</th>
<th>2°C</th>
<th>3°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea-level rise</td>
<td>0.3-0.6 m</td>
<td>0.4-0.8 m</td>
<td>0.4-0.9 m</td>
</tr>
<tr>
<td>Chance of ice-free Arctic summer</td>
<td>1 in 30</td>
<td>1 in 6</td>
<td>4 in 6 (63%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Economic Impacts</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Global GDP impact (2018: $80tn)</td>
<td>-10%</td>
<td>-13%</td>
<td>-23%</td>
</tr>
<tr>
<td>Food supply</td>
<td>Changing diets, yield loss in tropics</td>
<td>24% yield loss</td>
<td></td>
</tr>
</tbody>
</table>

Source: TCFD, Guidance on Risk Management Integration and Disclosure, 2020
Key Principles for Integration
The TCFD guidance on risk management includes specific, key principles to help companies achieve effective integration of climate-related risks into existing risk management processes.

**Interconnections.** Integrating climate-related risks into existing risk management requires analysis and collaboration across the company. The principle of interconnections means all relevant functions, departments, and experts are involved in the integration of climate-related risks into the company’s risk management processes and ongoing management of such risks.

**Temporal Orientation.** Climate-related physical and transition risks should be analyzed across short-, medium-, and long-term time frames for operational and strategic planning, which may require extending beyond traditional planning horizons.

**Proportionality.** The integration of climate-related risks into existing risk management processes should be proportionate in the context of the company’s other risks, the materiality of its exposure to climate-related risks, and the implications for the company’s strategy.

**Consistency.** The methodology used to integrate climate-related risks should be used consistently within a company’s risk management processes to support clarity on analysis of developments and drivers of change over time.

Source: TCFD, *Guidance on Risk Management Integration and Disclosure*, 2020
# Initial Steps for Integration

The Task Force provides the following steps to help kick-start the process of integrating climate-related risks into existing processes:

1. **Understand Climate Change Concepts**
   - Ensure there is a general understanding across the company of climate change concepts and its potential impacts. This will enable management and others involved in managing risk to connect the general effects of climate change to more specific implications for the company.

2. **Identify Processes and Functions**
   - Identify the specific risk management processes and elements that may need to be adjusted for the integration of climate-related risk as well as the functions and departments responsible for those processes and elements.

3. **Update Risk Taxonomy**
   - Incorporate climate-related risks into the existing risk taxonomy and risk inventory used in the company. This includes mapping climate-related risks to existing risk categories and types.

4. **Adjust Risk Management Elements**
   - Adapt existing risk management processes and associated elements based on knowledge gained through the previous steps and on the unique characteristics of climate-related risks.

5. **Disclose Risk Management Processes**

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The Task Force views these initial steps as iterative rather than strictly sequential.

Source: TCFD, *Guidance on Risk Management Integration and Disclosure*, 2020
Discussion question

• Are climate-related risks managed using the same processes used for other types of risks in your company?
Additional Resources

Other resources on how to get started can be found on the TCFD website and the Knowledge Hub.

TCFD Website

- Find all the information you need about the TCFD on its official website, including the recommendations and all other publications.

Knowledge Hub

- Find additional TCFD-related resources curated by the CDSB (information on the recommendations, alignment with other frameworks, online courses, etc).

https://www.fsb-tcfd.org/

https://www.tcfdhub.org/
## TCFD Series of Workshops

The next session will focus on the Metrics and Targets recommendation

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<thead>
<tr>
<th>Session</th>
<th>TCFD Recommendation:</th>
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<td>Fundamentals and Overview of TCFD</td>
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<tr>
<td>5</td>
<td>Metrics &amp; Targets</td>
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*Next session*
Appendix: Supplemental risk management guidance for the financial sector
Overview of the Supplemental Guidance

The Task Force identified certain areas where supplemental guidance was warranted for the financial sector, specifically for the Risk Management recommendation.

Financial Sector

The supplemental guidance is intended to provide additional context for the financial sector when preparing disclosures consistent with the Task Force’s recommendations, namely for the following four major industries:

– Banks
– Insurance Companies
– Asset Owners
– Asset Managers

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Source: TCFD, Annex: Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures, 2021
### Supplemental Risk Management Guidance for the Financial Sector

**Risk Management**

Disclose how the company identifies, assesses, and manages climate-related risks

<table>
<thead>
<tr>
<th>Banks</th>
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<tr>
<td><strong>Recommended disclosure a)</strong></td>
<td>Banks should consider characterizing their climate-related risks in the context of traditional banking industry risk categories such as credit risk, market risk, liquidity risk, and operational risk. Banks should also consider describing any risk classification frameworks used (e.g., the Enhanced Disclosure Task Force’s framework for defining “Top and Emerging Risks”).</td>
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<tr>
<th>Insurance Companies</th>
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| **Recommended disclosure a)** | Insurance companies should describe the processes for identifying and assessing climate-related risks on re-insurance portfolios by geography, business division, or product segments, including the following risks:  
- physical risks from changing frequencies and intensities of weather-related perils;  
- transition risks resulting from a reduction in insurable interest due to a decline in value, changing energy costs, or implementation of carbon regulation; and  
- liability risks that could intensify due to a possible increase in litigation. |
| **Recommended disclosure b)** | Insurance companies should describe key tools or instruments, such as risk models, used to manage climate-related risks in relation to product development and pricing. Insurance companies should also describe the range of climate-related events considered and how the risks generated by the rising propensity and severity of such events are managed. |

Note: For readability, we removed footnote references from these excerpts. Please see the annex referenced below for more information.

## Supplemental Risk Management Guidance for the Financial Sector (continued)

### Risk Management
Disclose how the company identifies, assesses, and manages climate-related risks

<table>
<thead>
<tr>
<th>Asset Owners</th>
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<tr>
<td><strong>Recommended disclosure a)</strong> Asset owners should describe, where appropriate, engagement activity with investee companies to encourage better disclosure and practices related to climate-related risks to improve data availability and asset owners’ ability to assess climate-related risks.</td>
</tr>
<tr>
<td><strong>Recommended disclosure b)</strong> Asset owners should describe how they consider the positioning of their total portfolio with respect to the transition to a low-carbon energy supply, production, and use. This could include explaining how asset owners actively manage their portfolios’ positioning in relation to this transition.</td>
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<table>
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<tr>
<th>Asset Managers</th>
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</table>
| **Recommended disclosure a)** Asset managers should describe, where appropriate, engagement activity with investee companies to encourage better disclosure and practices related to climate-related risks in order to improve data availability and asset managers’ ability to assess climate-related risks.  
Asset managers should also describe how they identify and assess material climate-related risks for each product or investment strategy. This might include a description of the resources and tools used in the process. |
| **Recommended disclosure b)** Asset managers should describe how they manage material climate-related risks for each product or investment strategy. |