

TCFD WORKSHOP

Session 1 - Fundamentals and overview of TCFD

February 2022

TCFD Series of Workshops

Session

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2	TCFD Recommendation: Governance	
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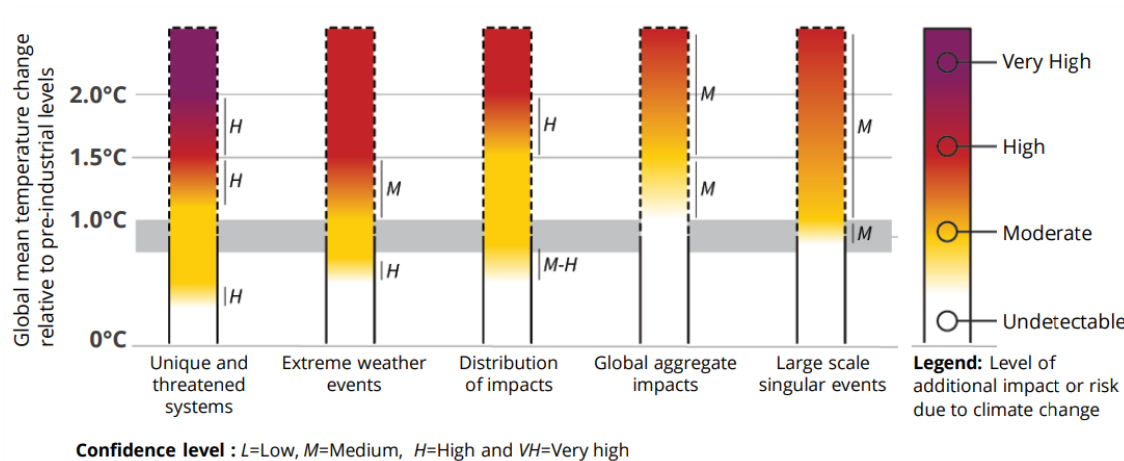
Fundamentals of climate-related risks and opportunities

Impacts of Climate Change

Urgent and unprecedented changes are needed to meet the goals of the Paris Agreement

Climate Change As an Economic Disruptor

According to the Inter-governmental Panel on Climate Change, limiting the **global average temperature to a maximum of 1.5°C** “require[s] rapid and far-reaching transitions in energy, land, urban and infrastructure [systems] (including transport and buildings), and industrial systems.”



The figure above illustrates the level of impact and risk on people, economies, and ecosystems associated with global average temperature increases, with four of the five risk categories (on X-axis) having increased in the last decade.

Reducing global greenhouse gas emissions and accelerating the transition to a lower-carbon economy could result in **disruptive changes across economic sectors and regions in the near term.**

Now more than ever it is critical for companies to consider the **impact of climate change** and associated mitigation and adaptation efforts on their strategies and operations and **disclose climate-related information.**

Sources

TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), June 2017

TCFD, [2019 Status Report](#), 2019

IPCC, [Summary for Policymakers: Global Warming of 1.5°C](#), October 2018

Impacts of Climate Change *(continued)*

Climate change has potential financial implications for companies across all sectors

What are the Financial Implications of Climate Change?



Climate change poses significant financial challenges and opportunities:

- **Transition to a lower-carbon economy** → potential to **generate new investment opportunities**.
- **Risk-return profile** → **potential to change significantly** for companies exposed to climate-related risks as they may be more affected by physical impacts of climate change, climate policy, and new technologies.

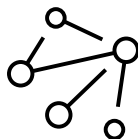


The financial crisis of 2007-2008 resulted in **increased demand for transparency** from companies on their **governance structures, strategies, and risk management practices**, to provide the context in which financial results are achieved.



Critical for companies to **consider the impact of climate change** and **disclose related material information**. Companies that invest in activities that may not be viable in the longer term:

- may be **less resilient** to risks related to climate change and
- their investors may experience **lower financial returns**.



Investors **need better information on how companies**—across a wide range of sectors—**have prepared or are preparing for a lower-carbon economy**. Those companies that meet this need may have a **competitive advantage over others**.

Sources

TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017
TCFD, [2019 Status Report](#), 2019

Impacts of Climate Change *(continued)*

Climate action failure and its consequences, including extreme weather, environmental damage, and biodiversity loss, are recognized as several of the top risks globally

Rising Importance of Environmental Threats

Trend in top five risks in terms of likelihood, 2015-2021

■ Environmental ■ Technological ■ Geopolitical ■ Economic ■ Societal

2015	2016	2017	2018	2019	2020	2021
Interstate conflict	Involuntary migration	Extreme weather	Extreme weather	Extreme weather	Extreme weather	Extreme weather
Extreme weather	Extreme weather	Involuntary migration	Natural disasters	Climate action failure	Climate action failure	Climate action failure
Failure of national governance	Climate action failure	Natural disasters	Cyberattacks	Natural disasters	Natural disasters	Human environmental damage
State collapse or crisis	Interstate conflict	Terrorist attacks	Data fraud or theft	Data fraud or theft	Biodiversity loss	Infectious diseases
Unemployment	Natural catastrophes	Data fraud or theft	Climate action failure	Cyberattacks	Human-made environmental disasters	Biodiversity loss



Note: The top 5 risks for each year presented in this chart were identified the year prior through the annual World Economic Forum Global Risks Perception Survey. These surveys were conducted among the World Economic Forum's multi-stakeholder communities, members of the Institute of Risk Management since 2015, and the professional networks of its Advisory Board since 2016.

Source: WEF: [Global Risks Report 2021](#)

Climate-Related Risks

On one hand, climate change exposes companies to climate-related risks, which include physical risks and transition risks

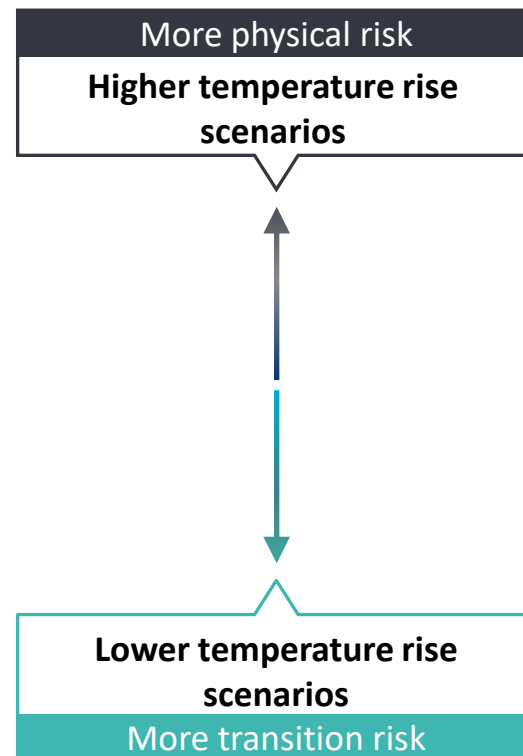
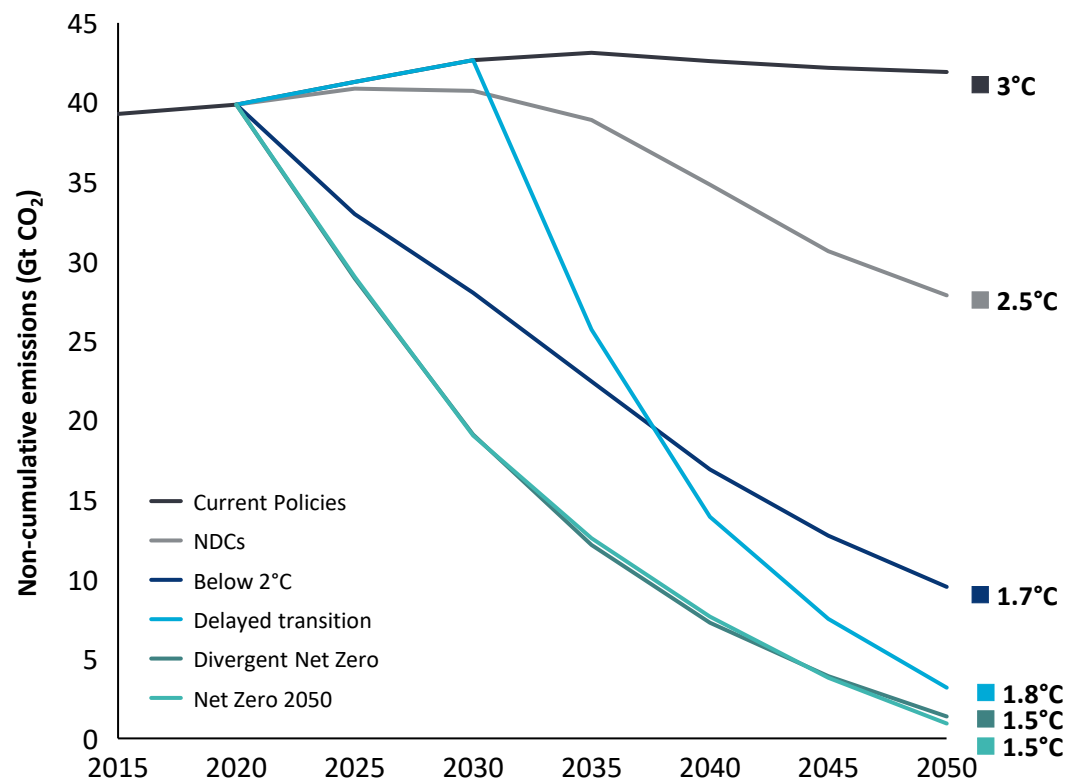
Examples of Climate-Related Risks (Non Exhaustive)

 Physical Risks	Acute <ul style="list-style-type: none">• Increased severity of extreme weather events such as cyclones and floods
	Chronic <ul style="list-style-type: none">• Changing weather patterns and rising mean temperature and sea levels
 Transition Risks	Policy and Legal <ul style="list-style-type: none">• Increased pricing of GHG emissions• Enhanced emissions-reporting, obligations• Mandates on and regulation of existing products and services• Exposure to litigation
	Technology <ul style="list-style-type: none">• Substitution of existing products and services with lower emissions options• Unsuccessful investment in new technologies• Costs to transition to lower emissions technology
	Market <ul style="list-style-type: none">• Changing customer behavior• Uncertainty in market signals• Increased cost of raw materials
	Reputation <ul style="list-style-type: none">• Shifts in consumer preferences• Stigmatization of sector• Increased stakeholder concern or negative stakeholder feedback

Climate-Related Risks *(continued)*

Physical and transition climate-related risks will vary under different temperature rise scenarios

CO₂ Emission Trajectory and Corresponding Temperature Rise from Pre-Industrial Levels



Note: These are potential temperature rise scenarios, which are not predictions of the future

Climate-Related Risks *(continued)*

Climate-related risks have unique characteristics...



Different effects based on geography and activities



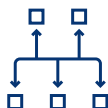
Longer time horizons and long-lived effects



Novel and uncertain nature



Changing magnitude and nonlinear dynamics



Complex relationships and systemic, non-diversifiable effects

Climate-Related Risk and Financial Impact

...and expose companies to potential financial impacts

Examples of Climate-Related Risks and Potential Financial Impact






Risk		Potential Financial Impact
Increased severity of extreme weather (e.g., droughts)	➔	Reduced revenue from decreased production capacity
Rising sea levels	➔	Increased insurance premiums in high-risk locations
Increased pricing of GHG emissions	➔	Increased operating costs
Mandates on and regulation of products and services	➔	Write-offs and asset impairment
Shift in consumer preferences toward low carbon options	➔	Reduced revenue from decreased demand for products

“Risk” refers to the potential for negative or adverse consequences.

Climate-Related Opportunities

On the other hand, companies can identify climate-related opportunities in the transition to net zero...

Examples of Climate-Related Opportunities (Non Exhaustive)

 Resource Efficiency	<ul style="list-style-type: none">• Use of more efficient modes of transport and production and distribution processes• Use of recycling• Move to more efficient buildings• Reduced water usage and consumption
 Energy Source	<ul style="list-style-type: none">• Use of lower-emission sources of energy• Use of supportive policy incentives• Use of new technologies• Participation in carbon market
 Products & Services	<ul style="list-style-type: none">• Development and/or expansion of low emission goods and services• Development of climate adaption and insurance risk solutions• Development of new products or services through R&D and innovation
 Markets	<ul style="list-style-type: none">• Access to new markets• Use of public-sector incentives• Access to new assets and locations needing insurance coverage
 Resilience	<ul style="list-style-type: none">• Participation in renewable energy programs and adoption of energy-efficiency measures• Resource substitutes/diversification

Climate-Related Opportunities and Financial Impact

... which can lead to potential positive financial impacts

Examples of Climate-Related Opportunities and Potential Financial Impact

Opportunity		Potential Financial Impact
Move to more efficient buildings	➔	Increased value of fixed assets (e.g., highly rated energy efficient buildings)
Use of lower-emission sources of energy	➔	Reduced exposure to future fossil fuel price increases as well as GHG emissions, and therefore less sensitivity to changes in cost of carbon
Development and/or expansion of low emission goods and services	➔	Increased revenue through demand for lower emissions products and services
Access to new markets	➔	Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks)
Resource substitutes/diversification	➔	Increased reliability of supply chain and ability to operate under various conditions

“Opportunities” refer to the potential for positive or favorable consequences.

Discussion question:

- **What is a financial impact from a climate-related issue that your company might experience?**

Introduction to the TCFD

Introduction

The Task Force on Climate-related Financial Disclosures was created in late 2015 to help identify information needed by the financial sector to appropriately assess and price climate-related risks

The G20 Finance Ministers and Central Bank Governors asked the Financial Stability Board (FSB) to review how the financial sector can take account of climate-related issues.

In response, **the FSB established the Task Force on Climate-related Financial Disclosures (TCFD)** to develop recommendations for more effective climate-related disclosures.

“The FSB is asking the Task Force on Climate-related Financial Disclosures to make recommendations for consistent company disclosures that will *help financial market participants understand their climate-related risks*. Access to high quality financial information will allow market participants and policymakers to understand and better manage those risks, which are likely to grow with time.”

- Mark Carney (FSB Chair), Speaking at the COP21 Paris Climate Change Conference, December 2015 (emphasis added)

Industry Led and Geographically Diverse Task Force

The Task Force’s 32 international members, led by Chair Michael Bloomberg, include providers of capital, insurers, large non-financial companies, accounting and consulting firms, and credit rating agencies.



Experts from
the Financial
Sector

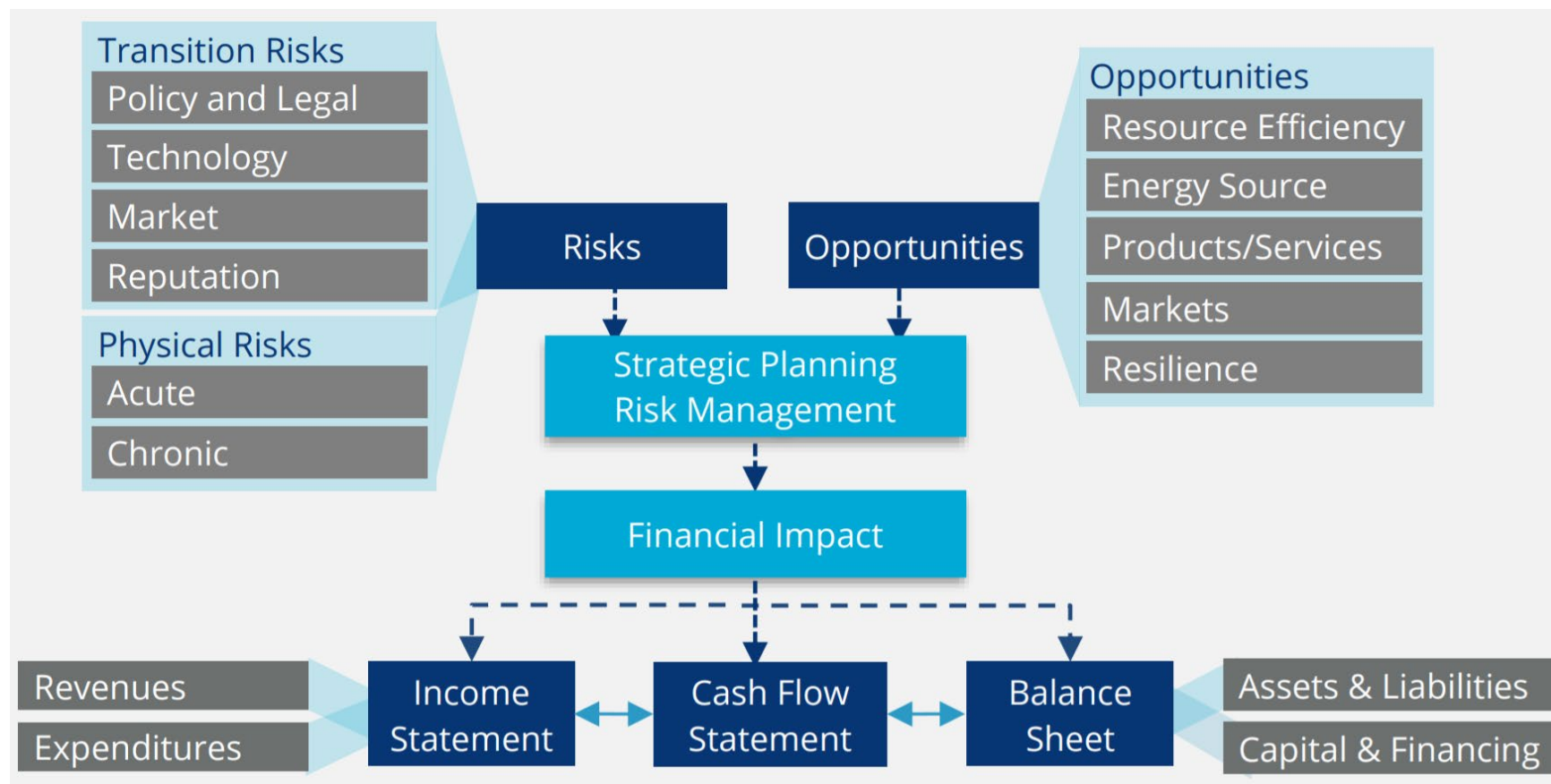
Experts from
Non-Financial
Sectors

Other
Experts

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 *(continued)*

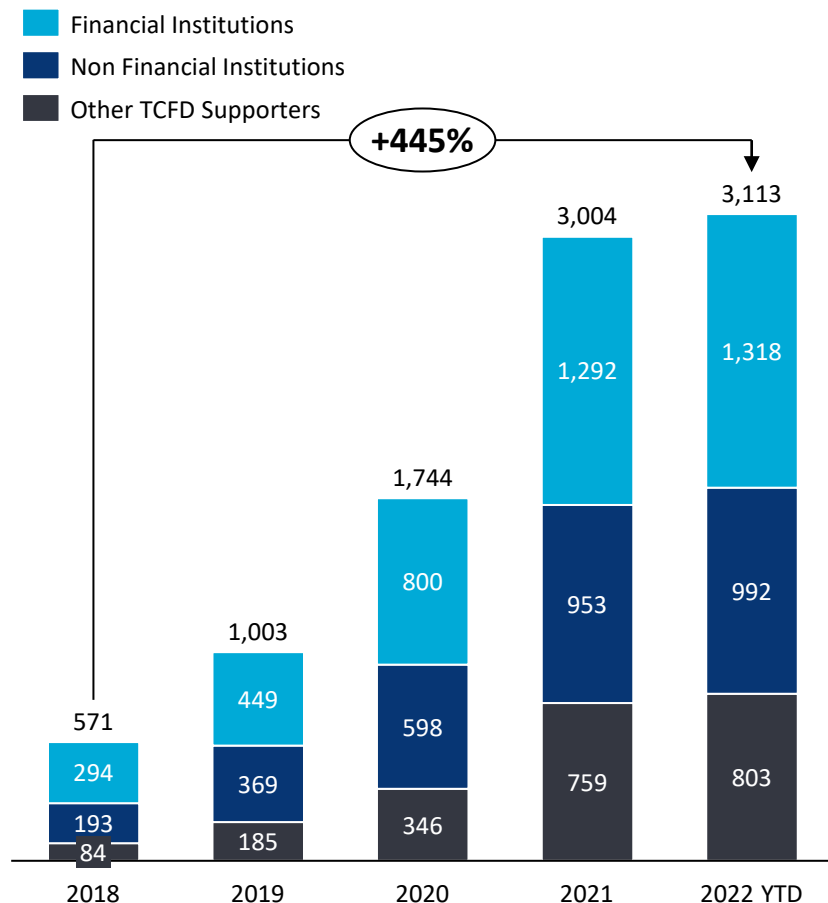
Better disclosure of the financial impacts of climate-related risks and opportunities on a company is a key goal of the Task Force's work



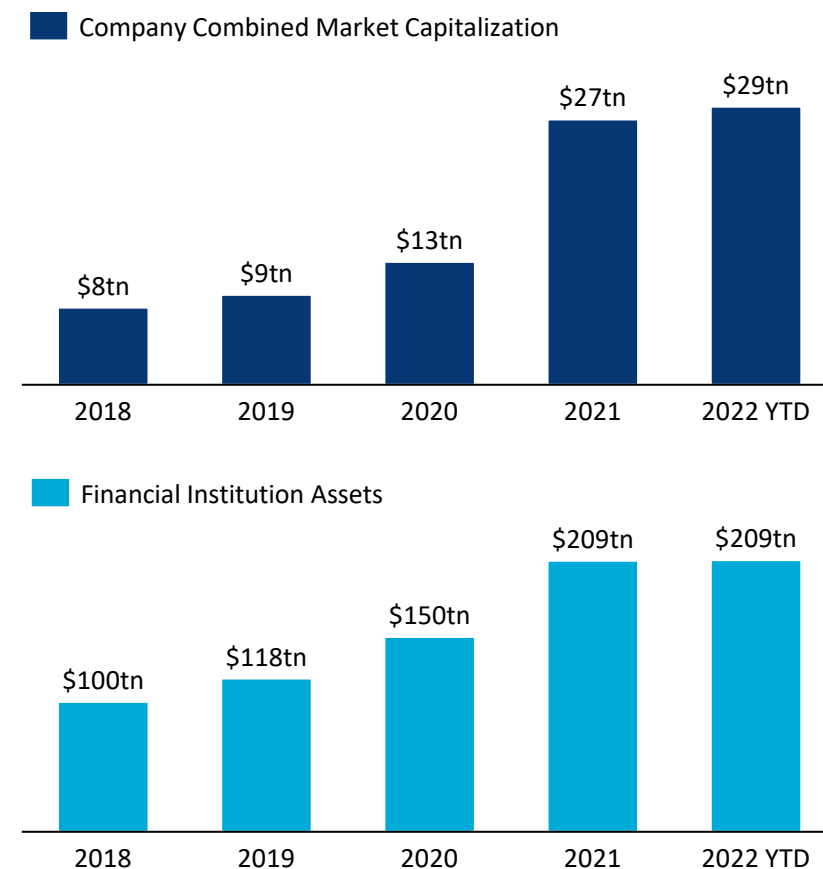
Reach of the TCFD

The momentum behind TCFD has grown globally since its establishment, with over 3,000 supporters from around the world

Number of TCFD Supporters



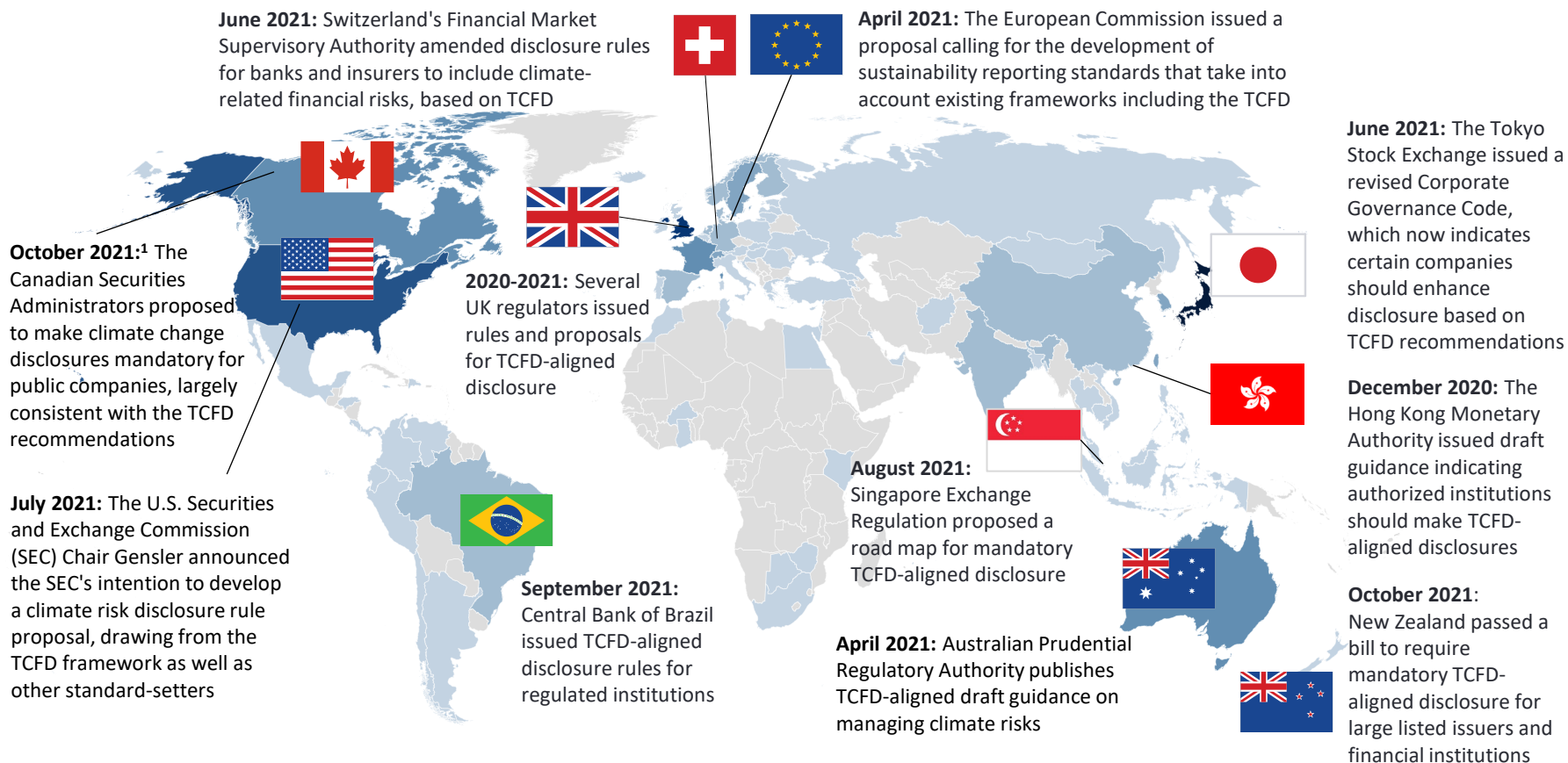
TCFD Supporter Market Coverage USD, Trillions



Note: As of February 9th, 2022. About 500 additional companies declared their support for the TCFD since the launch of the 2021 status report. The current number of supporters is continuously growing and can be found at fsb-tcfd.org/support-tcfd

Reach of the TCFD *(continued)*

In addition, various jurisdictions are taking steps to encourage or mandate TCFD-aligned disclosure



1. The descriptions for Canada and New Zealand have been updated since the release of the 2021 status report to reflect new developments in both jurisdictions. The description for the U.S. was added since the release of the 2021 status report.

Discussion questions:

- **How did you come across the TCFD?**
- **How could climate-related disclosure be beneficial for your company?**

Overview of the TCFD recommendations

TCFD Recommendations

The Task Force's work is a solution by the market for the market

In developing its 2017 recommendations, the Task Force:

- Considered the **challenges and benefits of disclosure** around climate-related risks and opportunities
- Engaged in **significant outreach and consultation** with users and preparers of disclosures and other stakeholders, including two public consultations, individual discussions and focus groups with industry, webinars, and outreach events
- Sought to develop a decision-useful framework to **align and supplement existing disclosure and reporting frameworks**
- Emphasized disclosure of the **financial impacts** of climate-related risks and opportunities on a company (rather than a company's impact on environment)
- The TCFD framework is intended to be a **focal point for harmonizing disclosures**, and a **roadmap for areas where additional work may be warranted** by others

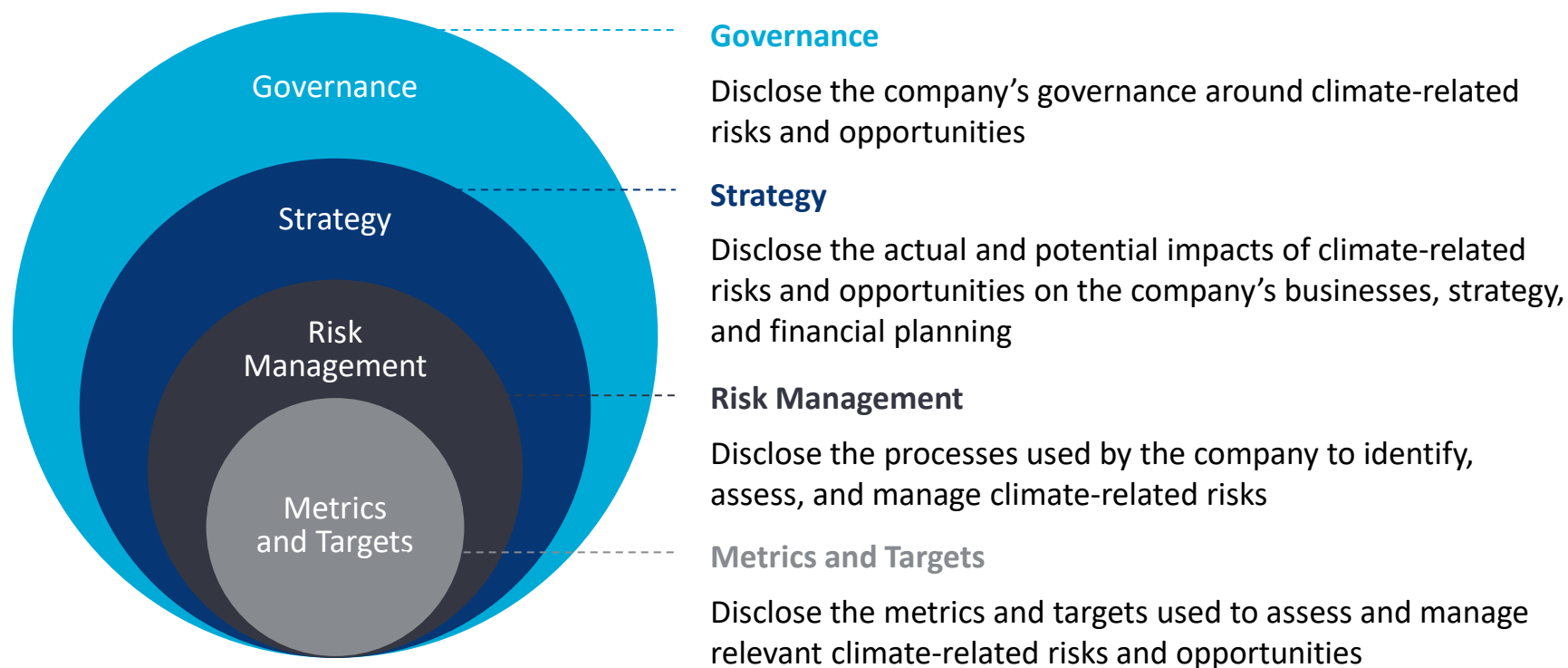


2017 Recommendations

Overview of the TCFD Recommendations

The Task Force developed four widely-adoptable recommendations on climate-related financial disclosures, published in June 2017

Core Elements of the TCFD Recommendations



TCFD Recommended Disclosures

The Task Force developed 11 recommended disclosures across the four recommendations

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

Overview of TCFD publications

Since 2017, TCFD has released a number of additional reports and guidance to measure progress and aid implementation

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

See next page



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

Status Reports

2018 Status Report

2019 Status Report

2020 Status Report























2021 Status Report

Note: Visit fsb-tcfd.org/publications to access all of the Task Force's reports, guidance, and other materials.

Focus on the Implementation Guidance

The Implementation Guidance provides guidance for all sectors and supplemental information for four financial industries and four groups of non-financial companies

Guidance for Financial Industries and Non-Financial Groups

		Governance		Strategy			Risk Management			Metrics and Targets		
		a)	b)	a)	b)	c)	a)	b)	c)	a)	b)	c)
Guidance for All Sectors												
	All											
Supplemental Guidance												
Financial Industries	Banks											
	Insurance Companies											
	Asset Owners											
	Asset Managers											
Non-Financial Groups	Energy											
	Transportation											
	Materials and Buildings											
	Ag., Food, and Forest Products											

Note: The boxes represent guidance for the corresponding recommended disclosure.

Source: TCFD, [Annex : Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2021

Discussion question:

- **Do the four core categories of the recommendations resonate with how your company operates?**

Implementation of the TCFD recommendations

Benefits of TCFD Implementation

There are multiple benefits of implementing the TCFD recommendations

Improve access to capital by increasing investors' and lenders' confidence that the company's climate-related risks are appropriately assessed and managed

More effectively meet existing disclosure requirements to report material information in financial filings

Increase awareness and understanding of climate-related risks and opportunities within the company resulting in better risk management and more informed strategic planning

Address investors' demand for climate-related information in a framework that investors are increasingly asking for, which could ultimately reduce the number of climate-related information requests received

Principles for Effective Disclosure

To help achieve high-quality disclosures, the Task Force recommends that companies consider seven principles for effective disclosure

Disclosures Should:

- 1 Represent relevant information
- 2 Be specific and complete
- 3 Be clear, balanced, and understandable
- 4 Be consistent over time
- 5 Be comparable among companies within a sector industry or portfolio
- 6 Be reliable, verifiable, and objective
- 7 Be provided on a timely basis

The [2017 report](#) also provides more information on these principles.

Location of Disclosure

The Task Force recommends that information on climate-related issues be disclosed in a company's annual financial filings or other official company reports

Location of Disclosure for Task Force Recommendations

Legend: ■ Governance ■ Strategy ■ Risk Management ■ Metrics and Targets				Financial Filing	Other Annual Report*
Information is deemed Material				■ ■ ■ ■	
Information is deemed not Material				■ ■ ■ ■	■
<i>Large non-financial companies in high-emitting industries¹</i>				■ ■	■ ■

* Other annual reports include regulatory or official company reports that are issued at least annually.

Companies should determine materiality for climate-related issues consistent with how they determine the materiality of other information included in their annual financial filings. The Task Force **cautions companies against prematurely concluding that climate-related risks and opportunities are not material** based on perceptions of the longer-term nature of some climate-related risks.

Companies need to make financial disclosures in accordance with their national disclosure requirements. If certain elements of the recommendations are **incompatible with national disclosure requirements for financial filings**, companies are encouraged to **disclose those elements through other reports that are issued at least annually**.

1. The Task Force recommends companies in non-financial groups with over 1 billion US\$ in annual revenue that are more exposed to climate-related risks to disclose Strategy and Metrics and Targets information in other annual reports.

2. Scope 1 and Scope 2 GHG emissions should be disclosed irrespective of materiality

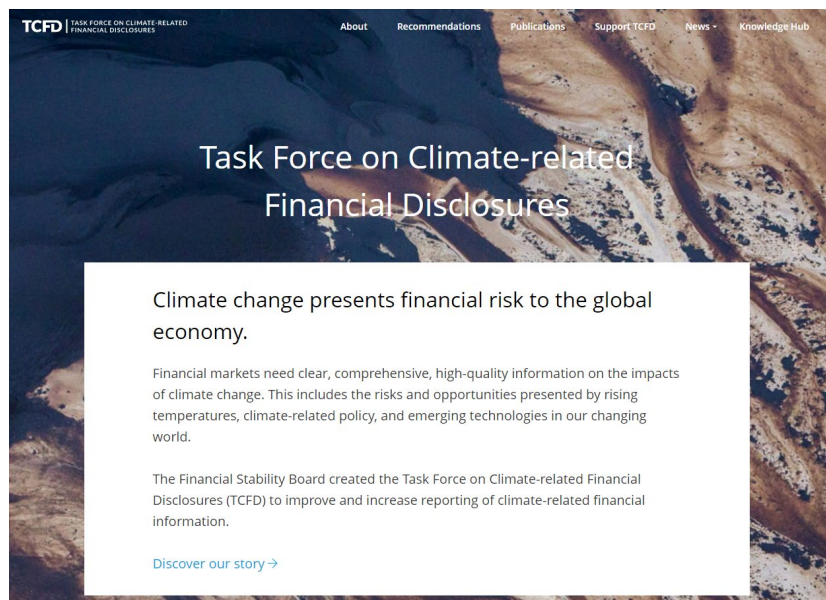
Source: TCFD, [Annex : Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2021

Additional Resources

The TCFD website and the Knowledge Hub, developed by CDSB, provide a variety of resources and information on TCFD implementation

TCFD Website

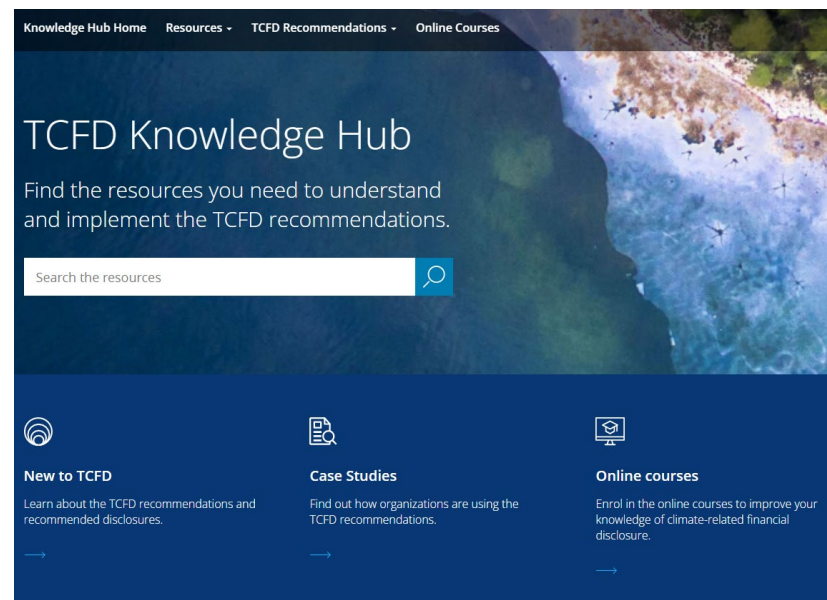
Find all the information you need about the TCFD on its official website, including the recommendations and all other publications.



<https://www.fsb-tcf.org/>

Knowledge Hub

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



<https://www.tcfhub.org/>

TCFD Series of Workshops

The next session will focus on the Governance recommendation

Session

1	Fundamentals and Overview of TCFD	
2	TCFD Recommendation: Governance	<i>Next session</i>
3	TCFD Recommendation: Strategy	
4	TCFD Recommendation: Risk Management	
5	TCFD Recommendation: Metrics and Targets	

Q&A

Appendix

Structure of the Recommendations

The following resources should be read in order to understand the full scope of the TCFD framework

Recommendations and Guidance Structure



Recommendations

Four widely adoptable recommendations tied to: governance, strategy, risk management, and metrics and targets. These were introduced in the final 2017 TCFD recommendations publication

Recommended Disclosures

Specific recommended disclosures companies should include in their financial filings to provide decision-useful information

Guidance for All Sectors

Guidance providing context and suggestions for implementing the recommended disclosures for all companies

Supplemental Guidance for Certain Sectors

Guidance that highlights important considerations for certain sectors and provides a fuller picture of potential climate-related financial impacts in those sectors

Supplemental guidance is provided for the financial sector and for non-financial sectors potentially most affected by climate change

Additional Supporting Materials

Additional information and guidance to help preparers implement key components of the TCFD recommendations (e.g., Guidance on Metrics, Targets, and Transition Plans, etc.)

Application of Recommendations

Who Should Disclose?

To promote more informed investing, lending, and insurance underwriting decisions, the Task Force recommends all financial and non-financial organizations with public debt or equity implement its recommendations. Because climate-related risks and opportunities are relevant for organizations across all sectors, the Task Force encourages all organizations to implement these recommendations. In addition, the Task Force believes that asset managers and asset owners, including public- and private-sector pension plans, endowments, and foundations, should implement its recommendations.

Which Recommendations Involve an Assessment of Materiality?

The disclosures related to the Strategy and Metrics and Targets recommendations involve an assessment of materiality, with the exception of Scope 1 and Scope 2 GHG emissions under the Metrics and Targets recommendation. The Task Force believes all organizations should disclose absolute Scope 1 and Scope 2 GHG emissions independent of a materiality assessment. The disclosure of Scope 3 GHG emissions is subject to materiality; however, the Task Force encourages organizations to disclose such emissions.

Application of Recommendations *(continued)*

Where Should Preparers Disclose?

Preparers of climate-related financial disclosures should provide such disclosures in their mainstream (i.e., public) annual financial filings. Certain organizations—those in the four non-financial groups that have more than one billion U.S. dollar equivalent (USDE) in annual revenue—should consider disclosing information related to the Strategy and Metrics and Targets recommendations in other reports when the information is not deemed material and not included in financial filings.

Other reports include official company reports that are issued at least annually, widely distributed and available to investors and others, and subject to internal governance processes that are the same or substantially similar to those used for financial reporting. Asset owners and asset managers should report to their beneficiaries and clients, respectively, through existing means of financial reporting, when relevant and feasible. Asset owners and asset managers are also encouraged to disclose publicly via their websites or other public avenues of disclosure.

How Should Material Information Be Determined?

Organizations should determine materiality for climate-related issues consistent with how they determine the materiality of other information included in their annual financial filings. The Task Force cautions organizations against prematurely concluding that climate-related risks and opportunities are not material based on perceptions of the longer-term nature of some climate-related risks.

When providing disclosures outside mainstream financial filings, asset managers and asset owners should consider materiality in the context of their respective mandates and investment performance for clients and beneficiaries.

Application of Recommendations *(continued)*

Who Should Review Climate-Related Financial Disclosures Prior to Release?

Because these disclosures should be included in mainstream financial filings, the governance processes should be as rigorous as those used for existing public financial disclosures, including review by the chief financial officer, audit committee, and Board of Directors, as appropriate. Organizations that provide climate-related financial disclosures in reports other than financial filings should follow internal governance processes that are the same or similar to those used for financial reporting.

What Should Preparers Do if They Choose to Omit a Recommended Disclosure?

If a recommended disclosure is not made, preparers should provide their rationale for omitting the disclosure.

What Reporting Period Should Preparers Use?

Preparers should report information for the same period covered by their mainstream financial filings.

Application of Recommendations *(continued)*

How Should Preparers Define Short, Medium, and Long Term?

The Task Force is not specifying time frames for short, medium, and long term given that the timing of climate-related impacts on businesses will vary. Instead, the Task Force recommends preparers define time frames according to the life of their assets, the profile of the climate-related risks they face, and the sectors and geographies in which they operate

What if Certain Disclosures Are Incompatible with National Disclosure Requirements?

Organizations need to make financial disclosures in accordance with their national disclosure requirements. If certain elements of the recommendations are incompatible with national disclosure requirements for financial filings, organizations are encouraged to disclose those elements through other reports.